

AD-A113 889 ARMY ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND WS--ETC F/G 4/2
20302A ASSAULT BREAKER, MISSILE NUMBER TFT-4, ROUND NUMBER V3A2--ETC(U)
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AD A113889

METEOROLOGICAL DATA REPORT
20302A Assault Breaker
Missile Number TFT-4
Round Number V3A2
20 Feb 1982

by

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AVN Number 349-9568

ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

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19. KEY WORDS (Continue on reverse side if necessary and identify by block number)		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of the 20302A Assault Breaker, Missile Number TFT-4, Round Number V3A2, presented in tabular form.		

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INTRODUCTION

20302A Assault Breaker, Missile Number TFT-4, Round Number V3A2, was launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 0910:45 MST, 20 Feb 1982. The scheduled launch time was 0900 MST.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature ($^{\circ}\text{C}$), relative humidity, dew point ($^{\circ}\text{C}$), density (gm/m^3), wind direction and speed, and cloud cover were made at the LC-33 and Jallen Met Sites.

(2) Anemometer data were provided from existing pole-mounted and tower-mounted anemometers at LC-33. Monitor of wind speed and direction from one anemometer was also provided in the launch control room.

b. Upper Air

(1) Low Level wind data were obtained from pilot-balloon observations at:

SITE AND ALTITUDE

LC-33	2760 Meters	0855 MST
LC-33	2760 Meters	0911 MST
Jallen	1380 Meters	0850 MST
Jallen	480 Meters	0911 MST

(2) Air structure data (rawinsonde) were collected at the following Met Sites:

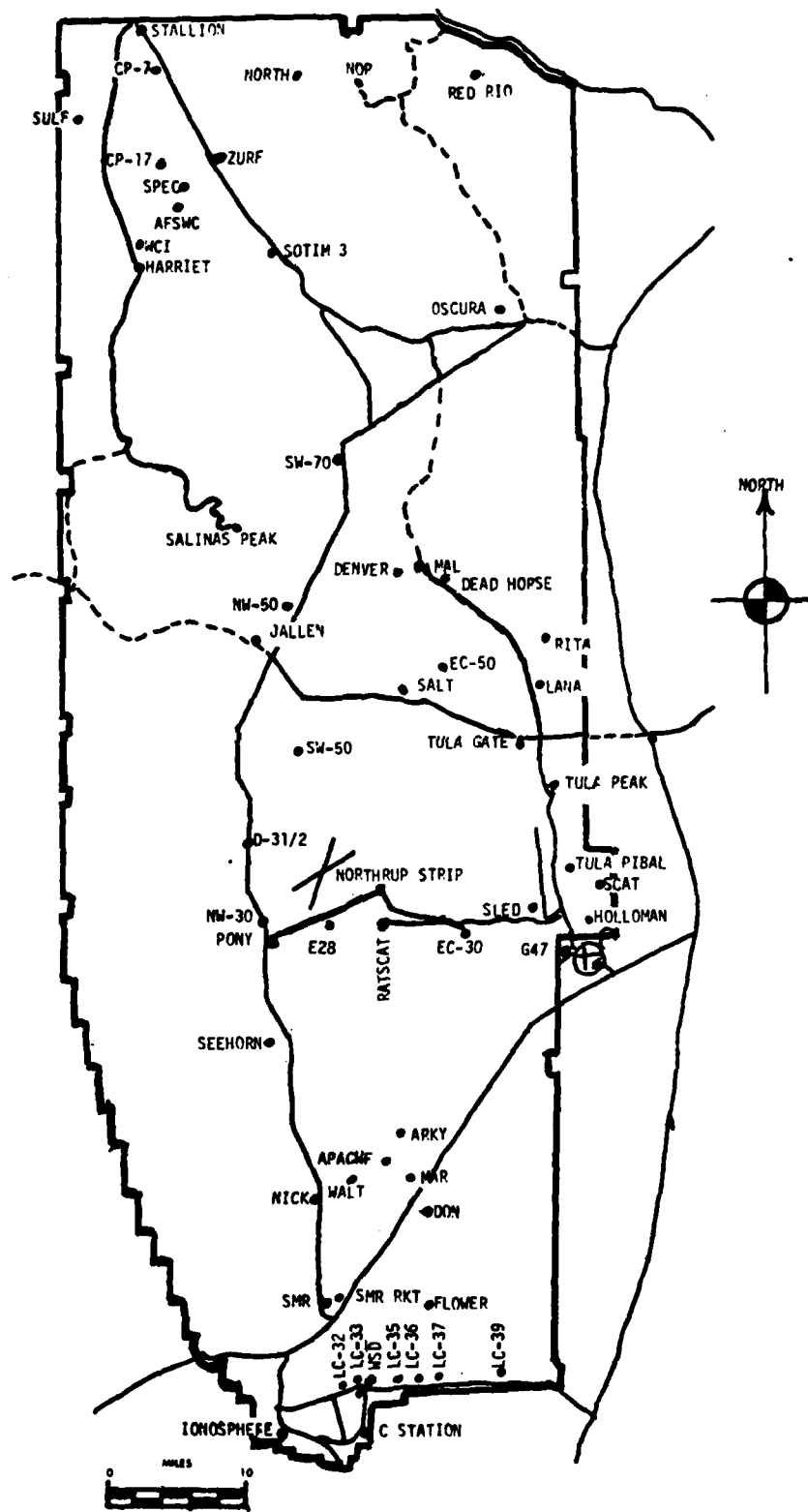
SITE AND TIME

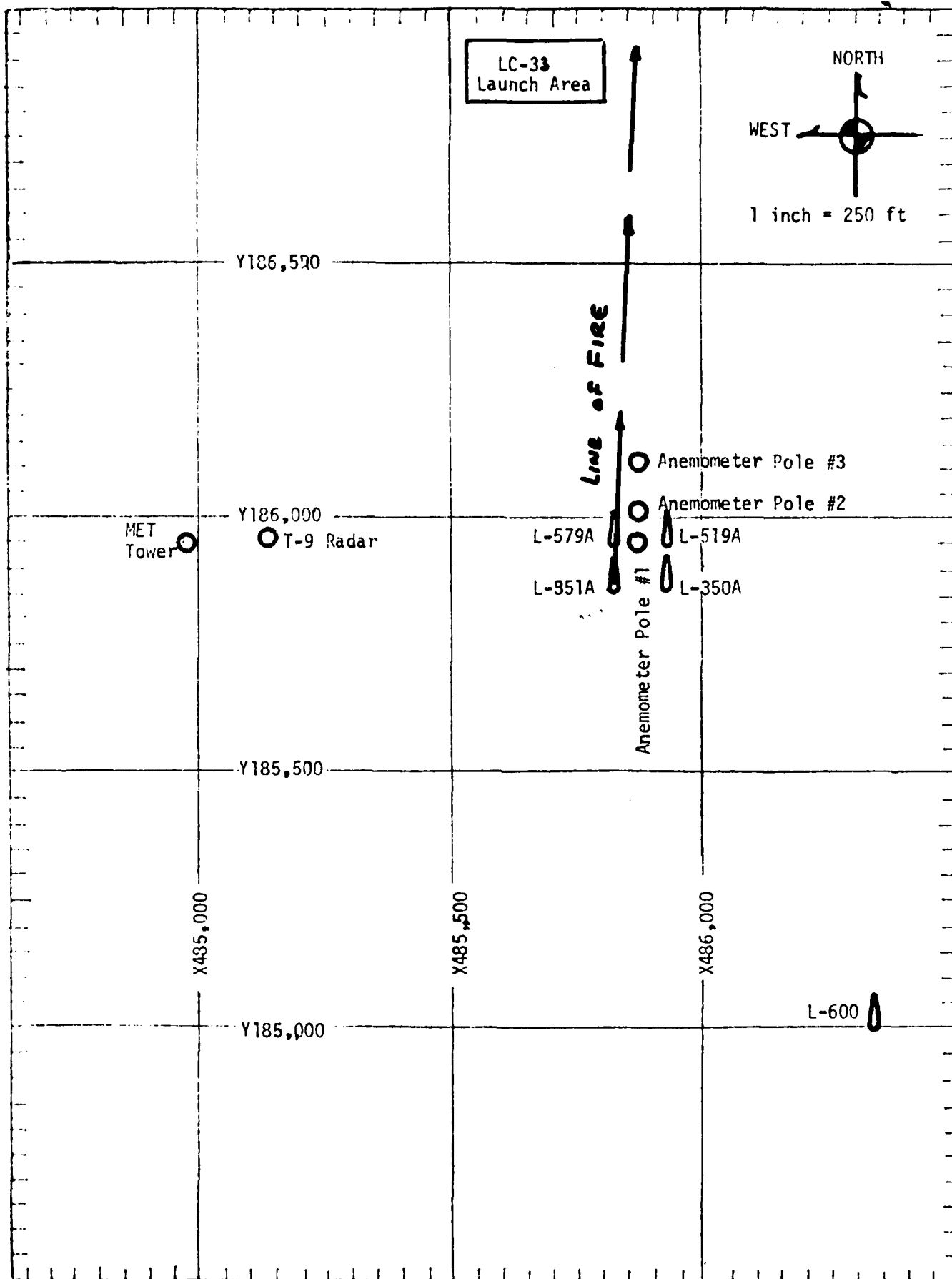
Holloman	0630 MST
Jallen	0745 MST
LC-37	0800 MST
Jallen	0910 MST
WSD	0911 MST



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Distribution/	
Availability Codes	
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WSMR METEOROLOGICAL SITES





PROJECT SURFACE OBSERVATION

TABLE 1		STATION		LC-33					
DATE 20 Feb 1982		X= 484,982.64		Y= 185,957.73 H= 3983.00					
DAY		MONTH		YEAR					
TIME M S J	PRESSURE mbs	TEMPERATURE OF °C	DEW POINT OF °C	RELATIVE HUMIDITY %	DENSITY gm/m ³	DIRECTION degs	WIND SPEED kts	CHARACTER kts	VISIBIL- ITY
0911	884.4	12.2	2.2	50	1075	310	06		50

OBSTRUCTIONS TO VISIBILITY	CLOUDS						REMARKS
	1st LAYER		2nd LAYER		3rd LAYER		
	AMT	TYPE	AMT	TYPE	AMT	TYPE	
	C L E A R						

PSYCHROMETRIC COMPUTATION

TIME:	0911	
DRY BULB TEMP.	12.2	
WET BULB TEMP.	7.1	
WET BULB DEPR.	5.1	
DEW POINT	2.2	
RELATIVE HUMID.	50	

TABLE 2 LC-33 FIXED POLE ANEMOMETER MEASURED WINDS

POLE #1 X485,874.29 Y185,958.90 H4018.74 38.7 ft. AGL			POLE #2 X485,874.93 Y186,012.00 H4033.57 53.0 ft. AGL			POLE #3 X485,877.29 Y186,116.06 H4063.92 83.6 ft. AGL		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	320	04	T-30	321	04	T-30	332	08
T-20	317	04	T-20	335	04	T-20	333	07
T-10	315	04	T-10	332	04	T-10	324	07
T0.0	305	05	T0.0	322	05	T0.0	325	07
T+10	300	04	T+10	320	05	T+10	328	06

TABLE 3 LC-33 METEOROLOGICAL TOWER ANEMOMETER MEASURED WINDS (202 FT TOWER)

LEVEL #1, 12 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #2, 62 FEET X484,982.64, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	329	05	T-30	318	06
T-20	306	06	T-20	321	06
T-10	308	06	T-10	335	05
T0.0	310	06	T0.0	327	06
T+10	318	07	T+10	336	05

LEVEL #3, 102 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #4, 202 FEET X484,982, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	316	05	T-30	324	06
T-20	314	06	T-20	318	07
T-10	315	05	T-10	331	05
T0.0	328	05	T0.0	332	07
T+10	339	05	T+10	330	06

PILOT BALLOON MEASURED WIND DATA

TABLE 4

RELEASED FROM LC-33

DATE 20 February 82

TIME 0855 MST

COORDINATES (WGS84) X= 486,872.00 Y= 184,146.75 Z= 3981.15

HEIGHTS ARE METERS AGL XX OR FEET AGL

HEIGHT AGL	DIRECTION DEGREES	SPEED KNOTS	HEIGHT AGL	DIRECTION DEGREES	SPEED KNOTS	HEIGHT AGL	DIRECTION DEGREES	SPEED KNOTS
SFC	070	06	1800	353	16			
60	035	07	1860	355	16			
120	013	10	1920	357	15			
180	002	13	1980	359	14			
240	359	16	2040	005	14			
300	356	18	2100	012	14			
360	355	20	2160	018	14			
420	355	22	2220	020	16			
480	354	23	2280	022	17			
540	355	24	2340	026	16			
600	355	25	2400	030	15			
660	356	25	2460	035	15			
720	356	25	2520	039	15			
780	356	24	2580	042	16			
840	356	24	2640	043	17			
900	357	23	2700	044	18			
960	357	23	2760	043	18			
1020	355	22						
1080	354	22						
1140	352	21						
1200	350	21						
1260	348	20						
1320	346	20						
1380	345	19						
1440	344	19						
1500	344	18						
1560	344	17						
1620	346	17						
1680	349	17						
1740	351	17						

PILOT BALLOON MEASURED WIND DATA

TABLE 5

RELEASED FROM LC-33

DATE 20 Feb 82

TIME 0911 MST

COORDINATES (WSTM)

$$\chi = 486,872.00$$
$$Y = 184,146.75$$

$\mu = 3981.15$

HEIGHTS ARE METERS AGL X OR FEET AGL

HEIGHT METER	REFLECTION DEGREE	SHED METER
SFC	310	06
60	332	06
120	350	07
180	004	09
240	002	10
300	001	12
360	360	13
420	358	15
480	357	17
540	356	19
600	355	21
660	354	24
720	355	26
780	355	29
840	355	31
900	357	33
960	358	36
1020	359	36
1080	359	35
1140	359	34
1200	358	31
1260	356	29
1320	355	27
1380	354	26
1440	352	25
1500	351	24
1560	349	24
1620	345	24
1680	342	25
1740	341	26

[illegible][illegible]

PROJECT SURFACE OBSERVATION

TABLE 6									
STATION: Jallen									
DATE	20	Feb	1982	X= 450,362.08 Y= 464,129.26 H= 4053.51					
TIME	0830	0910	0940	TIME	0830	0910	0940	TIME	0830
MOIST	881.9	882.4	882.5	MOIST	881.9	882.4	882.5	MOIST	881.9
TEMP OF	11.9	14.2	14.3	TEMP OF	11.9	14.2	14.3	TEMP OF	11.9
DEW POINT	-2.5	-0.4	0.0	DEW POINT	-2.5	-0.4	0.0	DEW POINT	-2.5
RELATIVE HUMIDITY	36	36	37	RELATIVE HUMIDITY	36	36	37	RELATIVE HUMIDITY	36
DENSITY	1074	1065	1064	DENSITY	1074	1065	1064	DENSITY	1074
WIND	07	08	08	WIND	07	08	08	WIND	07
CHARACTER				CHARACTER				CHARACTER	
VISIBILITY	50+	50+	50+	VISIBILITY	50+	50+	50+	VISIBILITY	50+

OBSTRUCTIONS TO VISIBILITY	CLOUDS								REMARKS	
	1st LAYER		2nd LAYER		3rd LAYER					
	AMT	TYPE	HGT	AMT	TYPE	HGT	AMT	TYPE		HGT
CLEAR										
CLEAR										
CLEAR										

PSYCHROMETRIC COMPUTATION

TIME:	0830	0910	0940
DRY BULB TEMP.	11.9	14.2	14.3
WET BULB TEMP.	5.2	7.0	7.2
WET BULB DEPR.	6.7	7.2	7.1
DEW POINT	-2.5	-0.4	0.0
RELATIVE HUMID.	36	36	37

PILOT BALLOON MEASURED WIND DATA

TABLE 7

RELEASED FROM Jallen

DATE 20 Feb 82

TIME 0850 MST

COORDINATES (WSTM)

$$\chi = 450,362.08$$
$$Y = 464,129.26$$
$$r = 4053.51$$

HEIGHTS ARE METERS AGL ^X OR FEET AGL _____.

HEIGHT AGL	DIRECTION DEGREES	SPEED KNOTS
SFC	060	07
60	007	06
120	334	09
180	322	14
240	318	12
300	313	10
360	310	08
420	321	07
480	331	07
540	340	07
600	348	08
660	354	08
720	002	10
780	007	12
840	009	14
900	009	16
960	009	17
1020	008	16
1080	007	15
1140	008	14
1200	015	12
1260	024	11
1320	034	10
1380	048	09
1440	LOST IN SUN	

[illegible][illegible]

PILOT BALLOON MEASURED WIND DATA

TABLE 8

RELEASED FROM Jallen DATE 20 Feb 82 TIME 0911 MST

COORDINATES (WSTM) X= 450,362.08 Y= 464,129.26 H= 4053.51

HEIGHTS ARE METERS AGL X OR FEET AGL _____

[illegible][illegible][illegible]

STATION ALTITUDE 4126.59 FEET MSL
20 FEB. 62 0630 HRS MST
ASCENSION NO. 53

SIGNIFICANT LEVEL DATA
0510010053
HOLLUMAI

GEODETIC COORDINATES
32.00000 LAT UG6
106.00000 LON UG6

TABLE 9

PRESSURE	GEOMETRIC ALTITUDE	TEMPERATURE AIR	DEWPOINT DEGREES	HLL. HUM. PERCENT
MILLIBARS	MSL FEET	CELSIUS		
878.4	4126.6	2.2	-0.9	80.0
874.6	4243.0	8.1	3.8	74.0
868.8	4424.3	10.2	4.4	67.0
858.3	4756.5	10.0	-3.0	40.0
850.0	5022.2	10.9	-2.1	40.0
846.0	5151.5	11.4	-2.0	39.0
754.1	8279.2	6.4	-3.5	49.0
737.0	8897.7	6.8	-11.8	25.0
700.0	10280.5	4.2	-13.6	26.0
632.8	12943.4	-2.9	-14.0	42.0
590.4	14738.0	-6.4	-18.6	37.0
533.0	17335.0	-13.0	-19.3	59.0
500.0	18927.0	-16.4	-28.9	33.0
439.5	22073.0	-23.6	-39.2	22.0
430.0	22598.3	-23.8	-40.8	19.0
400.0	24320.5	-28.3	-44.6	19.0
335.6	28375.7	-38.7	-49.4	31.0
300.0	30877.7	-44.8		
283.7	32103.8	-46.3		
260.1	33987.3	-50.3		
250.0	34838.3	-50.5		
227.5	36863.6	-50.6		
220.0	37586.2	-48.9		
200.0	39629.9	-53.0		
184.5	41334.2	-55.5		
180.4	41806.8	-55.0		
160.3	44279.9	-57.6		
150.0	45664.3	-56.9		
142.2	46781.3	-56.2		
124.7	49514.2	-59.2		
110.9	51920.8	-62.3		
103.9	53246.4	-63.2		
100.0	54022.6	-63.2		
85.5	57172.8	-67.0		
70.0	61160.8	-66.9		
59.9	64288.8	-64.3		
54.0	66379.9	-65.1		
50.0	67942.0	-61.7		
44.8	70185.0	-62.5		
37.8	73684.2	-58.3		

STATION ALTITUDE 4126.59 FEET MSL
 20 FEB. 82 0630 HRS MST
 ASCENSION NO. 53

SIGNIFICANT LEVEL DATA
 0510010053
 HOLLONAH

GEODLTIC COORDINATES
 52.80005 LAT DEG
 106.09305 LONG DEG

TABLE 9 Cont'd

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE		REL. HUM. PERCENT
	AIR DEGREES	DEWPOINT CENTIGRADE	
30.0 78500.9	-57.6		
25.0 82316.4	-56.7		
21.6 85424.9	-50.8		
20.0 87086.0	-50.2		
15.6 92433.6	-52.2		
13.3 95880.6	-48.6		
11.8 98491.0	-48.1		

STATION ALTITUDE 4126.59 FEET MSL
20 FEB. 62
ASCENSION NO. 53

UPPER AIR DATA
0510010055
HOLLOWAY
TABLE 10

GEODETIC COORDINATES
32.00005 LAT DEG
106.09965 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND DIRECTION (10)	WIND SPEED KNOTS	INDEX OF REFRACTION
4126.0	878.4	2.2	80.0	1108.6	647.3	300.0	6.0	1.000276
4500.0	860.4	10.2	60.8	1061.9	656.8	357.7	9.1	1.000272
5000.0	850.7	10.8	40.0	1041.2	657.3	350.3	13.2	1.000256
5500.0	835.2	10.8	40.1	1022.1	657.3	355.6	17.3	1.000252
6000.0	820.0	10.0	41.7	1000.3	656.4	355.1	21.4	1.000248
6500.0	805.1	9.2	43.3	990.8	655.4	355.7	23.4	1.000245
7000.0	790.4	8.4	44.9	975.5	654.5	355.2	25.1	1.000241
7500.0	776.0	7.6	46.5	960.5	653.6	355.0	19.1	1.000237
8000.0	761.9	6.8	48.1	945.7	652.7	7.4	12.7	1.000234
8500.0	747.9	6.5	40.4	929.7	652.2	14.4	11.2	1.000226
9000.0	734.2	6.6	25.1	913.1	652.0	21.2	10.6	1.000215
9500.0	720.6	5.7	25.4	899.3	650.9	24.0	10.2	1.000212
10000.0	707.4	4.7	25.8	885.7	649.8	20.2	9.8	1.000208
10500.0	694.2	3.6	30.3	872.8	648.5	22.6	10.5	1.000205
11000.0	681.2	2.3	33.3	860.5	646.9	19.0	11.5	1.000203
11500.0	668.4	.9	33.3	848.4	645.4	16.1	11.5	1.000200
12000.0	655.8	-1.7	36.3	836.6	643.8	14.0	11.5	1.000197
12500.0	643.5	-1.7	39.3	824.9	642.2	16.6	10.9	1.000195
13000.0	631.4	-4.0	41.8	813.3	640.7	19.2	10.4	1.000192
13500.0	619.3	-5.0	40.4	800.7	639.5	19.0	10.2	1.000188
14000.0	607.5	-5.9	39.1	788.3	638.3	20.2	9.9	1.000184
14500.0	595.9	-7.1	37.7	776.1	637.1	21.0	9.5	1.000181
15000.0	584.3	-8.3	39.2	764.3	635.8	25.5	9.1	1.000178
15500.0	572.9	-9.6	43.5	753.0	634.3	36.5	9.3	1.000175
16000.0	561.8	-10.9	47.7	741.9	632.7	45.2	9.8	1.000173
16500.0	550.8	-12.1	51.9	730.9	631.2	51.0	10.5	1.000170
17000.0	540.1	-13.4	56.2	720.2	629.7	49.4	11.6	1.000168
17500.0	529.5	-14.4	48.1	709.4	628.2	44.4	13.0	1.000165
18000.0	519.0	-15.5	40.0	698.3	626.9	40.5	14.6	1.000161
18500.0	508.6	-16.6	32.7	687.3	625.5	37.5	16.2	1.000157
19000.0	498.5	-17.7	31.0	676.5	624.2	39.3	16.7	1.000154
19500.0	488.4	-18.9	29.2	665.8	622.8	42.1	17.2	1.000151
20000.0	478.5	-20.0	27.5	655.3	621.3	48.5	18.5	1.000148
20500.0	468.8	-21.1	25.8	644.9	619.9	54.3	20.0	1.000146
21000.0	459.3	-22.3	24.0	634.7	618.5	59.7	21.9	1.000143
21500.0	449.8	-23.4	22.3	624.7	617.1	61.4	24.2	1.000141
22000.0	440.8	-23.8	19.6	614.9	615.7	62.2	26.4	1.000138
22500.0	431.8	-24.8	19.0	603.0	615.3	62.6	27.0	1.000135
23000.0	422.8	-26.2	19.0	593.1	613.9	62.9	29.7	1.000133
23500.0	414.0	-26.2	19.0	583.9	612.3	61.9	32.9	1.000131

STATION ALTITUDE 4126.59 FEET MSL
20 FEB. 62 0630 HRS MST
ASCENSION NO. 53

UPPER AIR DATA
0510010053
HOLLOMAN

GEODLTIC COORDINATES
32.00005 LAT DEG
106.00005 LON DEG

TABLE 10 Con't

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION VELOCITY (KT)	WIND SPEED KNOTS	INDEX OF REFRACTION
24000.0	405.4	-27.5	19.0	574.8	610.7	00.0	36.8	1.000129
24500.0	390.5	-28.8	19.5	565.7	609.1	00.0	42.1	1.000127
25000.0	388.4	-30.0	21.0	556.5	607.5	00.0	46.6	1.000125
25500.0	380.1	-31.3	22.5	547.5	605.9	00.0	49.6	1.000123
26000.0	372.0	-32.6	24.0	538.0	604.2	00.0	52.2	1.000121
26500.0	364.0	-33.9	25.4	529.9	602.6	00.0	54.2	1.000119
27000.0	350.2	-35.2	26.9	521.4	601.0	00.0	55.2	1.000117
27500.0	340.6	-36.5	28.4	513.0	599.4	00.0	55.1	1.000115
28000.0	341.1	-37.7	29.9	504.7	597.8	00.0	55.1	1.000113
28500.0	333.7	-39.0	29.5**	490.5	596.1	00.0	55.1	1.000111
29000.0	320.3	-40.2	23.3**	480.0	594.0	00.0	55.7	1.000109
29500.0	319.1	-41.4	17.1**	479.8	593.0	00.0	56.0	1.000107
30000.0	312.0	-42.7	10.9**	471.6	591.5	00.0	54.3	1.000105
30500.0	305.1	-43.9	4.7**	463.6	589.9	00.0	52.5	1.000103
31000.0	298.3	-44.9		455.4	588.5	00.0	50.5	1.000101
31500.0	291.6	-45.6		440.4	587.7	00.0	49.2	1.000099
32000.0	285.0	-46.2		437.5	586.9	00.0	48.5	1.000097
32500.0	278.6	-47.1		429.4	585.7	00.0	48.4	1.000096
33000.0	272.2	-48.2		421.6	584.3	00.0	51.6	1.000094
33500.0	260.0	-49.3		413.9	582.9	00.0	52.8	1.000092
34000.0	259.9	-50.3		406.4	581.0	00.0	49.8	1.000091
34500.0	254.0	-50.4		397.2	581.4	00.0	46.8	1.000088
35000.0	248.1	-50.5		388.2	581.3	00.0	42.6	1.000086
35500.0	242.4	-50.5		379.3	581.3	00.0	32.5	1.000084
36000.0	236.8	-50.6		370.7	581.2	00.0	22.5	1.000083
36500.0	231.4	-50.6		362.2	581.2	00.0	15.1	1.000081
37000.0	226.1	-50.3		353.4	581.0	00.0	9.4	1.000079
37500.0	220.9	-49.1		343.4	583.1	00.0	8.2	1.000076
38000.0	215.8	-49.7		330.5	582.3	00.0	9.9	1.000075
38500.0	210.8	-50.7		330.2	581.0	00.0	11.8	1.000074
39000.0	205.0	-51.7		324.1	579.7	00.0	13.3	1.000072
39500.0	201.2	-52.7		318.0	578.4	00.0	14.0	1.000071
40000.0	190.5	-53.5		311.8	577.3	00.0	14.3	1.000069
40500.0	191.9	-54.3		305.5	576.4	00.0	12.9	1.000068
41000.0	187.4	-55.0		299.3	575.4	00.0	11.8	1.000067
41500.0	183.1	-55.3		292.0	575.0	00.0	12.0	1.000065
42000.0	178.7	-55.2		285.7	575.1	00.0	12.6	1.000064
42500.0	174.5	-55.7		279.0	574.4	00.0	12.8	1.000062
43000.0	170.4	-56.3		273.7	573.7	00.0	12.3	1.000061
43500.0	160.4	-56.8		267.9	573.1	00.0	11.7	1.000060

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4126.59 FEET MSL
20 FEB. 82 0630 HRS MST
ASCENSION NO. 53

UPPER AIR DATA
0510010053
HOLLOWAY
TABLE 10 Cont'd

GEODYTIC COORDINATES
32.88885 LAT DEG
106.89905 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (IN)	SPEED KNOTS	
44000.0	162.5	-57.3		262.2	572.4	233.4	10.9	1.000058
44500.0	158.6	-57.5		258.2	572.1	233.0	10.0	1.000057
45000.0	154.9	-57.2		249.9	572.4	272.4	8.1	1.000056
45500.0	151.2	-57.0		243.0	572.8	253.9	7.1	1.000054
46000.0	147.6	-56.7		237.6	573.2	241.2	9.7	1.000053
46500.0	144.1	-56.4		231.6	573.0	233.7	12.6	1.000052
47000.0	140.7	-56.4		226.2	573.5	243.7	16.0	1.000050
47500.0	137.4	-57.0		221.4	572.8	232.7	19.2	1.000049
48000.0	134.1	-57.5		216.7	572.0	201.1	20.3	1.000048
48500.0	130.9	-58.1		212.1	571.3	208.1	22.3	1.000047
49000.0	127.8	-58.6		207.6	570.0	272.4	26.3	1.000046
49500.0	124.8	-59.2		203.2	569.9	270.1	29.8	1.000045
50000.0	121.8	-59.8		198.9	569.0	262.9	30.0	1.000044
50500.0	118.9	-60.5		194.7	568.1	269.5	30.6	1.000043
51000.0	116.0	-61.1		190.6	567.3	255.5	26.2	1.000042
51500.0	113.2	-61.8		186.5	566.4	303.8	22.3	1.000042
52000.0	110.5	-62.4		182.6	565.6	302.5	19.7	1.000041
52500.0	107.8	-62.7		178.4	565.2	278.2	17.5	1.000040
53000.0	105.2	-63.0		174.4	564.7	291.3	15.2	1.000039
53500.0	102.6	-63.2		170.3	564.5	261.3	13.1	1.000038
54000.0	100.1	-63.2		166.1	564.5	203.5	11.6	1.000037
54500.0	97.7	-63.8		162.5	563.7	244.0	11.3	1.000036
55000.0	95.3	-64.4		158.9	562.9	234.7	11.8	1.000035
55500.0	92.9	-65.0		155.5	562.1	237.5	12.0	1.000035
56000.0	90.6	-65.6		152.1	561.3	242.3	12.0	1.000034
56500.0	88.4	-66.2		148.8	560.5	234.0	11.6	1.000033
57000.0	86.2	-66.8		145.0	559.6	203.3	11.7	1.000032
57500.0	84.1	-67.0		142.1	559.4	200.7	12.6	1.000032
58000.0	82.0	-67.0		138.0	559.4	207.9	13.6	1.000031
58500.0	80.0	-67.0		135.2	559.4	209.0	13.9	1.000030
59000.0	78.0	-67.0		131.8	559.4	271.6	14.3	1.000029
59500.0	76.1	-66.9		128.5	559.4	273.5	14.8	1.000029
60000.0	74.2	-66.9		125.3	559.5	273.2	15.4	1.000028
60500.0	72.4	-66.9		122.2	559.5	230.2	16.0	1.000027
61000.0	70.6	-66.9		119.2	559.5	290.9	16.7	1.000027
61500.0	68.8	-66.6		116.1	559.9	300.5	18.0	1.000026
62000.0	67.1	-66.2		113.0	560.4	309.1	18.3	1.000025
62500.0	65.5	-65.8		110.0	561.0	317.2	19.0	1.000024
63000.0	63.9	-65.4		107.1	561.0	320.0	16.5	1.000024
63500.0	62.3	-65.0		104.2	562.1	324.1	12.0	1.000023

STATION ALTITUDE 4126.59 FEET MSL
20 FEB. 62 0630 HRS MST
ASCENSION NO. 53

UNPLP AIR DATA
0510010053
HOLLONIAN
TABLE 10 Cont'd

GEODLTIC COORDINATES
32.00005 LAT DEG
106.09905 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CM ³	SPLD OF SOUND KNOTS	WIND DATA DIRECTION (IN) SPEED KNOTS	INDEX OF REFRACTION
6400.0	60.8	-64.5		101.5	562.7	33.0	1.000023
6450.0	59.3	-64.4		98.9	562.9	4.0	1.000022
6500.0	57.8	-64.6		96.6	562.0	34.4	1.000022
6550.0	56.4	-64.8		94.3	562.4	70.2	1.000021
6600.0	55.0	-65.0		92.1	562.1	89.0	1.000021
6650.0	53.7	-64.8		89.8	562.3	110.0	1.000020
6700.0	52.4	-63.8		87.1	563.7	132.0	1.000019
6750.0	51.1	-62.7		84.6	563.2	147.4	1.000019
6800.0	49.9	-61.7		82.1	560.5	155.1	1.000018
6850.0	48.7	-61.9		80.2	560.2	160.5	1.000018
6900.0	47.5	-62.1		78.4	560.0	169.1	1.000017
6950.0	46.3	-62.3		76.5	563.8	177.7	1.000017
7000.0	45.2	-62.4		74.7	563.5	187.0	1.000017
7050.0	44.1	-62.1		72.8	563.9	200.2	1.000016
7100.0	43.1	-61.5		70.9	560.7	228.0	1.000016
7150.0	42.0	-60.9		69.0	567.5	238.9	1.000015
7200.0	41.0	-60.3		67.1	568.3	249.1	1.000015
7250.0	40.0	-59.7		65.3	569.1	240.5	1.000015
7300.0	39.1	-59.1		63.6	569.9	233.0	1.000014
7350.0	38.1	-58.5		61.9	570.7	226.2	1.000013
7400.0	37.2	-58.3		60.4	571.1	218.6	1.000013
7450.0	36.3	-58.2		58.9	571.2	209.0	1.000013
7500.0	35.5	-58.1		57.5	571.3	193.5	1.000012
7550.0	34.6	-58.0		56.1	571.4	182.3	1.000012
7600.0	33.8	-58.0		54.8	571.5	170.7	1.000012
7650.0	33.0	-57.9		53.4	571.6	163.4	1.000012
7700.0	32.2	-57.8		52.2	571.7	149.9	1.000011
7750.0	31.5	-57.7		50.9	571.8	138.0	1.000011
7800.0	30.7	-57.7		49.7	571.9	129.0	1.000011
7850.0	30.0	-57.6		48.5	572.0	119.0	1.000011
7900.0	29.3	-57.5		47.3	572.1	109.0	1.000011
7950.0	28.6	-57.4		46.2	572.3	102.5	1.000010
8000.0	27.9	-57.2		45.1	572.4	100.7	1.000010
8050.0	27.3	-57.1		44.0	572.6	111.4	1.000010
8100.0	26.6	-57.0		42.9	572.7	114.4	1.000009
8150.0	26.0	-56.9		41.9	572.9	107.0	1.000009
8200.0	25.4	-56.8		40.9	573.1	102.0	1.000009
8250.0	24.8	-56.4		39.8	573.6	90.0	1.000008
8300.0	24.2	-55.4		38.7	574.9		
8350.0	23.6	-54.5		37.7	576.1		

STATION ALTITUDE 4126.59 FEET MSL
 20 FEB. 62 0630 IRS MST
 ASCENSION NO. 53

UPPER AIR DATA
 0510010055
 HOLLoman

GEODETIC COORDINATES
 32.88865 LAT UEG
 106.09965 LONG UEG

TABLE 10 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
84000.0	23.1	-53.5			30.6	577.4	90.1	4.7	1.000008
84500.0	22.6	-52.6			35.6	578.0	65.0	5.2	1.000008
85000.0	22.0	-51.6			34.7	579.9	79.0	5.2	1.000008
85500.0	21.5	-50.8			33.7	581.0	88.0	4.7	1.000008
86000.0	21.0	-50.6			32.9	581.2	90.3	4.3	1.000007
86500.0	20.6	-50.4			32.1	581.4	91.0	4.3	1.000007
87000.0	20.1	-50.2			31.4	581.7	97.4	4.5	1.000007
87500.0	19.6	-50.4			30.7	581.5	99.9	4.7	1.000007
88000.0	19.2	-50.5			30.0	581.3	99.1	4.7	1.000007
88500.0	18.7	-50.7			29.3	581.0	99.1	4.4	1.000006
89000.0	18.3	-50.9			28.7	580.8	99.1	4.3	1.000006
89500.0	17.9	-51.1			28.0	580.5	99.1	4.4	1.000006
90000.0	17.5	-51.3			27.4	580.3	99.1	4.6	1.000006
90500.0	17.1	-51.5			26.8	580.0	99.1	4.8	1.000006
91000.0	16.7	-51.7			26.2	579.8	99.1	5.0	1.000006
91500.0	16.3	-51.9			25.6	579.5	99.1	4.8	1.000006
92000.0	15.9	-52.0			25.1	579.3	99.1	4.4	1.000006
92500.0	15.6	-52.1			24.5	579.2	99.1	4.2	1.000005
93000.0	15.2	-51.6			23.9	579.9	99.1	4.1	1.000005
93500.0	14.8	-51.1			23.3	580.5	99.1	4.8	1.000005
94000.0	14.5	-50.6			22.7	581.2	99.1	6.5	1.000005
94500.0	14.2	-50.0			22.1	581.9	99.1	8.7	1.000005
95000.0	13.9	-49.5			21.6	582.6	99.1	9.3	1.000005
95500.0	13.5	-49.0			21.0	583.3	99.1	9.3	1.000005
96000.0	13.2	-48.6			20.5	583.8	99.1	9.4	1.000005
96500.0	12.9	-48.5			20.0	583.9	99.1		1.000004
97000.0	12.6	-48.4			19.6	584.1	99.1		1.000004
97500.0	12.3	-48.3			19.1	584.2	99.1		1.000004
98000.0	12.1	-48.2			18.7	584.3	99.1		1.000004

STATION ALTITUDE 4126.59 FEET MSL
 20 FEB. 62 0630 HRS MST
 ASCENSION NO. 53

MANDATORY LEVELS
 0510010053
 HOLLUMAN

GEODLTIC COORDINATES
 32.88885 LAT DEG
 106.09965 LON DEG

TABLE 11

PRESSURE GEOPOTENTIAL MILLIBARS	FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	WIND DATA	
				DIRECTION (DEGREES(TN))	SPEED KNOTS
850.0	5019.	10.9	40.	350.3	13.4
800.0	6674.	9.0	44.	353.9	24.0
750.0	8419.	6.5	43.	13.4	11.3
700.0	10271.	4.2	26.	24.0	10.1
650.0	12230.	-1.0	30.	13.3	11.2
600.0	14306.	-5.6	30.	20.7	9.6
550.0	16524.	-11.0	52.	52.0	10.5
500.0	18901.	-16.4	33.	30.9	10.7
450.0	21472.	-22.3	24.	01.4	24.2
400.0	24281.	-28.3	19.	59.0	40.1
350.0	27373.	-36.2	28.	50.9	53.1
300.0	30818.	-44.8		57.7	51.0
250.0	34764.	-50.5		75.0	45.0
200.0	39537.	-53.0		348.9	14.1
175.0	42340.	-55.7		293.5	12.9
150.0	45544.	-56.9		249.4	7.8
125.0	49325.	-59.1		275.3	29.8
100.0	53858.	-63.2		205.0	11.0
80.0	58308.	-67.0		209.7	13.9
70.0	60954.	-66.9		293.0	17.0
60.0	64028.	-64.3		344.0	7.2
50.0	67690.	-61.7		154.0	7.0
40.0	72227.	-59.7		240.0	4.2
30.0	78171.	-57.6		175.3	3.5
25.0	81955.	-56.7		110.7	3.6
20.0	86684.	-50.2		41.2	4.5
15.0	92818.	-51.3		114.9	4.2

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.00 FEET MSL
20 FEB. 82 0745 HRS MST
ASCENSION ID. 7

SIGNIFICANT LEVEL DATA
0510030007
JALLEN

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

TABLE 12

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		HULL-ROOM PERCENT
		AIR DEGREES	WET-BULB CENTIGRADE	
881.6	4051.0	5.2	-1.5	62.0
871.3	4369.2	10.3	-1.7	43.0
864.8	4573.8	10.1	-2.2	42.0
850.0	5044.4	9.2	-3.0	42.0
793.2	6917.8	6.5	-4.9	44.0
760.5	8052.0	6.2	-7.0	38.0
733.9	9006.9	4.1	-10.3	34.0
700.0	10263.5	1.1	-13.7	32.0
643.6	12469.1	-2.4	-14.7	38.0
621.0	13398.8	-4.1	-17.9	33.0
604.3	14104.1	-5.1	-18.5	34.0
580.0	15159.2	-7.7	-17.6	44.0
547.8	16612.4	-10.5	-20.7	25.0
500.0	18999.9	-15.7	-31.2	25.0
462.1	20838.6	-20.1	-34.6	26.0
418.5	23234.7	-24.4	-38.7	25.0
400.0	24312.1	-27.4	-40.9	26.0
388.2	25018.7	-29.2	-41.8	28.0
374.0	25891.8	-31.0	-38.9	50.0
349.3	27475.6	-34.4	-42.5	43.0

STATION ALTITUDE 4051.00 FEET MSL
20 FEB. 82 0745 HRS MST
ASCENSION NO. 7

UPPER AIR DATA
0510030007

JALLEN

TABLE 13

GEODETIC COORDINATES
33.10/12 LAT DEG
100.49331 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ MLTR	SPEED OF SOUND KIOTS	WIND DIRECTION DEGREES (TYP)	WIND SPEED KIOTS	INDEX OF REFRACTION
4051.0	881.6	5.2	-1.5	62.0	1160.8	650.7	0.0	0.0	1.000272
4500.0	867.1	10.2	-2.0	42.4	1063.8	650.5	10.4	0.6	1.000202
5000.0	851.4	9.3	-2.9	42.0	1047.0	653.4	10.4	1.2	1.000257
5500.0	835.8	8.5	-3.5	42.5	1031.4	654.0	10.4	1.9	1.000252
6000.0	820.5	7.8	-4.0	43.0	1015.2	653.7	13.2	2.4	1.000248
6500.0	805.5	7.1	-4.4	43.6	999.2	652.9	12.7	1.9	1.000244
7000.0	790.8	6.5	-5.0	43.6	983.2	652.1	10.5	1.9	1.000239
7500.0	776.2	6.3	-5.9	40.9	965.7	651.9	11.9	1.9	1.000234
8000.0	762.0	6.2	-6.9	38.3	948.5	651.7	31.0	4.1	1.000229
8500.0	747.9	5.2	-8.6	36.1	934.5	650.5	34.0	7.0	1.000224
9000.0	734.1	4.1	-10.3	34.0	921.0	649.2	35.2	9.2	1.000219
9500.0	720.4	2.9	-11.7	33.2	907.9	647.7	35.2	11.0	1.000215
10000.0	707.0	1.7	-13.0	32.4	894.9	646.5	35.0	11.9	1.000211
10500.0	693.7	.7	-13.8	32.6	881.4	645.1	35.1	10.8	1.000207
11000.0	680.6	-.1	-14.0	34.0	867.5	644.2	34.0	9.4	1.000204
11500.0	667.8	-.9	-14.2	35.4	853.4	643.2	34.0	6.9	1.000200
12000.0	655.2	-1.7	-14.5	36.7	839.8	642.5	34.0	4.8	1.000197
12500.0	642.8	-2.5	-14.8	37.8	826.4	641.5	34.0	3.3	1.000194
13000.0	630.6	-3.4	-16.5	35.1	813.5	640.2	35.0	3.2	1.000190
13500.0	618.6	-4.2	-18.0	33.1	800.6	639.1	7.0	3.9	1.000186
14000.0	606.7	-5.0	-18.4	33.9	787.4	638.5	5.1	5.0	1.000183
14500.0	595.1	-6.1	-18.1	37.8	775.5	637.0	0.2	5.9	1.000181
15000.0	583.6	-7.3	-17.8	42.5	764.0	635.5	11.4	6.5	1.000178
15500.0	572.3	-8.4	-19.6	39.5	752.5	634.2	23.9	7.8	1.000175
16000.0	561.1	-9.3	-22.6	33.0	740.5	633.0	34.5	9.8	1.000170
16500.0	550.2	-10.3	-25.9	26.5	728.8	631.8	45.0	12.3	1.000166
17000.0	539.4	-11.4	-27.4	25.0	717.5	630.4	52.5	14.8	1.000163
17500.0	528.7	-12.5	-28.4	25.0	706.4	629.1	55.5	16.7	1.000161
18000.0	518.3	-13.7	-29.4	25.0	695.5	627.7	55.5	17.7	1.000158
18500.0	508.0	-14.8	-30.4	25.0	684.6	626.5	52.7	17.7	1.000155
19000.0	498.0	-15.9	-31.3	25.1	674.2	624.9	52.0	17.6	1.000153
19500.0	487.9	-17.1	-32.2	25.3	663.6	623.5	55.5	17.4	1.000150
20000.0	477.1	-18.2	-33.1	25.6	653.1	622.1	50.0	18.0	1.000148
20500.0	468.5	-19.3	-34.0	25.8	642.8	620.7	50.0	18.8	1.000145
21000.0	459.0	-20.4	-34.9	25.9	632.5	619.4	57.5	21.7	1.000143
21500.0	449.6	-21.3	-35.7	25.7	621.8	618.5	57.1	25.2	1.000140
22000.0	440.4	-22.2	-36.6	25.5	611.2	617.2	57.1	30.1	1.000138
22500.0	431.4	-23.1	-37.4	25.3	600.9	616.1	57.0	34.6	1.000135
23000.0	422.6	-24.0	-38.3	25.1	590.7	615.0	52.1	38.7	1.000133
23500.0	413.9	-25.1	-39.3	25.2	581.2	613.0	55.5	41.2	1.000131

STATION ALTITUDE 4051.00 FEET MSL
20 PER. W2 0745 HRS MST
ASCENSION NO. 7

UPPER AIR DATA
0510030007
JALLEN
TABLE 13 Cont'd

GEOMETRIC ALTITUDE 4051.00 FEET MSL
20 PER. W2 0745 HRS MST
ASCENSION NO. 7

GEOMETRIC ALTITUDE 4051.00 FEET MSL
20 PER. W2 0745 HRS MST
ASCENSION NO. 7

GEOMETRIC ALTITUDE 4051.00 FEET MSL
20 PER. W2 0745 HRS MST
ASCENSION NO. 7

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (T)	WIND SPEED KNOTS	INDEX OF REFRACTION
24000.0	405.3	-26.5	25.7	572.4	611.6	04.2	43.2	1.000129
24500.0	396.8	-27.9	26.5	563.5	610.2	02.3	44.2	1.000127
25000.0	388.5	-29.2	27.9	554.0	608.6	59.6	45.5	1.000124
25500.0	380.3	-30.2	43.4	545.2	607.3	50.6	47.2	1.000123
26000.0	372.3	-31.2	55.1	535.9	606.8	55.3	48.7	1.000121
26500.0	364.3	-32.3	51.0	526.8	604.7			1.000119
27000.0	356.5	-33.4	46.9	517.9	603.3			1.000116

STATION ALTITUDE 4051.00 FEET MSL
20 FEB. 82
ASCENSION NO. 7

MANDATORY LEVELS
0510030007
JALLEN
TABLE 14

STATION ALTITUDE 4051.00 FEET MSL
20 FEB. 82
ASCENSION NO. 7

STATION ALTITUDE 4051.00 FEET MSL
20 FEB. 82
ASCENSION NO. 7

STATION ALTITUDE 4051.00 FEET MSL
20 FEB. 82
ASCENSION NO. 7

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.		WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT	PERCENT		DIRECTION DEGREES (TN)	SPEED KNOTS
850.0	5041.	9.2	-3.0	42.		10.4	1.3
800.0	6683.	6.8	-4.6	44.		81.4	2.1
750.0	8419.	5.4	-8.3	36.		349.6	6.5
700.0	10254.	1.1	-13.7	32.		352.6	11.4
650.0	12198.	-2.0	-14.6	37.		347.5	4.2
600.0	14272.	-5.6	-18.3	36.		4.1	5.7
550.0	16491.	-10.3	-25.9	28.		45.7	12.3
500.0	18875.	-15.7	-31.2	25.		52.4	17.7
450.0	21453.	-21.3	-35.7	26.		57.1	25.0
400.0	24273.	-27.4	-40.9	26.		63.1	43.6
350.0	27382.	-34.3	-42.4	43.			

STATION ALTITUDE 4051.37 FEET MSL
20 FEB. 62 0800 HRS (151)
ASCENSION NO. 7

SIGHTING LEVEL DATA
05J010000/
LC-37

GEODETIC COORDINATES
32-40175 LAT LLG
106-31252 LONG UEG

TABLE 15

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES	DEWPOINT CENTIGRADE	
882.9	4051.4	3.5	0	78.0
877.1	4228.5	7.4	-0.1	59.0
875.1	4290.2	7.5	-0.7	50.0
862.2	4693.6	9.5	-0.9	48.0
850.0	5081.7	9.1	-1.0	49.0
832.0	5664.3	9.1	-2.2	45.0
783.2	7300.0	6.1	-0.9	33.0
754.6	8299.3	4.8	-2.3	60.0
703.0	10185.9	1.1	-4.7	65.0
700.0	10298.9	0.9	-0.6	57.0
688.4	10740.7	1.3	-15.6	27.0
679.4	11087.9	0	-11.7	41.0
652.6	12144.2	-1.6	-15.0	35.0
617.4	13584.7	-5.6	-13.2	55.0
600.2	14311.5	-6.9	-20.1	34.0
583.4	15038.3	-8.0	-23.2	20.0
574.6	15426.0	-8.8	-24.8	26.0
566.6	15782.5	-9.7	-18.9	47.0
549.8	16544.4	-11.3	-19.6	59.0
500.0	18918.7	-16.0	-35.3	17.0
463.4	20785.6	-20.5	-40.3	15.0
440.4	22016.3	-24.0	-43.2	15.0
400.0	24307.1	-28.2	-46.7	15.0
375.4	25794.0	-32.0	-49.8	15.0
316.6	29678.1	-41.3		
300.0	30878.7	-42.6		
264.6	33627.1	-49.8		
250.0	34847.7	-50.6		
231.4	36505.5	-51.2		
221.0	37491.4	-50.7		
200.0	39621.3	-53.5		
192.2	40404.0	-53.8		
170.2	43948.6	-52.0		
150.0	45729.3	-54.8		
126.8	49228.2	-60.3		
100.0	54055.3	-65.2		
91.6	55811.6	-66.9		
85.8	57125.0	-64.0		
80.2	58887.2	-64.8		
70.0	61221.2	-65.8		

STATION ALTITUDE 4051.7 FEET MSL
 20 FEB. 82 0800 HRS MSL
 ASCENSION NO. 7

SIGNIFICANT LEVEL DATA
 0510100007
 LC-37

GEOMETRIC COORDINATES
 32.40175 LAT DEG
 106.31232 LON DEG

TABLE 15 Cont'd

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE		REL. HUM. PERCENT
	AIR DEGREES	DEWPOINT CENTIGRADE	
50.0 66021.3	-62.7		
42.8 71221.6	-58.3		
35.6 75053.2	-58.3		
30.0 78624.7	-57.1		
20.0 87187.1	-53.4		
15.8 92244.8	-50.4		
14.6 93951.6	-50.4		

STATION ALTITUDE 4051.17 FEET MSL
20 FEB. 82 0800 HRS MST
ASCENSION NO. 7

UPPER AIR DATA
0510100007
LC-37
TABLE 16

GEOMETRIC ALTITUDE 4051.17 FEET MSL
20 FEB. 82 0800 HRS MST
ASCENSION NO. 7

GEOMETRIC COORDINATES
32.40175 LAT DEG
106.31232 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION IN DEGREES (TH)	SPEED KNOTS	INCL. OF REFRACTION
4051.4	882.9	3.5	0	78.0	1108.9	646.0	100.0	1.0	1.000277
4500.0	860.4	8.5	-0.8	51.6	1071.2	654.7	350.0	3.4	1.000266
5000.0	852.6	9.2	-1.0	40.3	1049.3	655.4	350.3	8.3	1.000261
5500.0	837.0	9.1	-1.9	46.1	1030.6	655.3	350.3	13.3	1.000255
6000.0	821.7	8.5	-3.5	42.5	1014.2	654.5	357.6	15.9	1.000249
6500.0	806.7	7.6	-5.5	38.9	999.2	653.3	350.7	17.8	1.000242
7000.0	791.9	6.7	-7.6	35.2	984.4	652.2	353.7	10.5	1.000236
7500.0	777.4	5.8	-7.2	38.4	969.0	651.3	350.9	19.3	1.000233
8000.0	763.1	5.2	-3.9	51.9	952.9	650.7	348.1	17.9	1.000235
8500.0	748.9	4.4	-2.5	60.5	937.6	649.9	345.1	16.5	1.000234
9000.0	735.0	3.4	-3.2	61.9	923.5	648.7	348.0	14.2	1.000230
9500.0	721.3	2.4	-3.8	63.2	909.6	647.5	354.1	11.9	1.000226
10000.0	707.9	1.5	-4.5	64.5	895.9	646.3	7.3	10.0	1.000222
10500.0	694.7	1.1	-10.0	43.3	881.1	645.6	24.9	9.2	1.000211
11000.0	681.7	0.3	-12.5	37.5	867.2	644.7	37.4	10.9	1.000205
11500.0	668.8	-0.6	-12.9	38.7	853.8	643.5	44.1	12.9	1.000202
12000.0	656.2	-1.4	-14.5	35.8	840.2	642.6	43.0	14.6	1.000197
12500.0	643.7	-2.6	-14.3	39.9	827.9	641.2	47.0	15.6	1.000195
13000.0	631.5	-4.0	-13.6	46.9	816.2	639.6	51.3	15.4	1.000193
13500.0	619.4	-5.4	-13.2	53.8	804.7	637.9	53.0	14.9	1.000191
14000.0	607.5	-6.3	-16.8	43.0	792.4	636.7	52.6	13.9	1.000185
14500.0	595.8	-7.2	-20.9	32.4	779.8	635.6	49.2	13.6	1.000180
15000.0	584.3	-7.9	-23.1	28.3	767.0	634.6	44.6	13.7	1.000176
15500.0	572.9	-9.0	-23.2	30.4	755.1	633.4	47.3	15.0	1.000173
16000.0	561.8	-10.2	-19.1	47.9	743.4	632.1	50.0	16.4	1.000173
16500.0	550.8	-11.2	-17.6	49.8	731.8	630.8	51.0	18.2	1.000170
17000.0	539.9	-12.2	-22.0	43.7	720.2	629.6	53.2	20.0	1.000166
17500.0	529.2	-13.2	-24.8	36.7	708.7	628.3	57.9	20.8	1.000162
18000.0	518.7	-14.2	-28.0	29.8	697.5	627.1	62.3	21.7	1.000159
18500.0	508.4	-15.2	-31.6	22.0	686.4	625.8	67.2	21.6	1.000155
19000.0	498.3	-16.2	-35.5	16.9	675.5	624.6	72.2	21.5	1.000152
19500.0	488.3	-17.4	-36.9	16.4	665.0	623.1	73.2	20.9	1.000150
20000.0	478.5	-18.6	-38.2	15.8	654.7	621.6	73.3	20.2	1.000147
20500.0	468.8	-19.8	-39.5	15.3	644.6	620.1	73.6	21.3	1.000145
21000.0	459.3	-21.1	-40.8	15.0	634.6	618.5	73.1	22.1	1.000142
21500.0	449.9	-22.5	-42.0	15.0	625.3	616.8	63.6	22.1	1.000140
22000.0	440.7	-24.0	-43.1	15.0	616.0	615.0	60.1	22.2	1.000138
22500.0	431.5	-24.9	-43.9	15.0	605.5	613.9	61.3	23.9	1.000136
23000.0	422.6	-25.8	-44.7	15.0	595.1	612.7	57.3	26.3	1.000133
23500.0	413.8	-26.7	-45.4	15.0	584.9	611.0	55.7	30.6	1.000131

STATION ALTITUDE 4051-37 FEET MSL
20 FEB. 62 0800 HRS MST
ASCENSION NO. 7

UPPER AIR DATA
051018000/
LC-37

CLOUDS, COORDINATES
52-40175 LAT DEG
106-31252 LON DEG

TABLE 16 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION (DEGREES TRUE)	WIND SPEED KNOTS	INDEX OF REFRACTION
24000.0	405.2	-27.6	15.0	574.9	610.5	50.1	36.9	1.000129
24500.0	390.7	-28.7	15.0	565.3	609.1	50.6	42.2	1.000126
25000.0	388.3	-30.0	15.0	556.3	607.5	50.1	45.7	1.000124
25500.0	380.1	-31.2	15.0	547.4	605.9	59.2	48.4	1.000122
26000.0	372.0	-32.5	14.2*	538.5	604.4	60.7	49.9	1.000120
26500.0	364.0	-33.7	12.3*	529.5	602.9	59.9	52.7	1.000118
27000.0	356.1	-34.9	10.3*	520.6	601.4	57.9	56.5	1.000116
27500.0	348.3	-36.1	8.4*	511.9	599.8	56.6	58.3	1.000114
28000.0	340.8	-37.3	6.5*	503.3	598.3	59.6	59.6	1.000112
28500.0	333.4	-38.5	4.5*	494.9	596.8	59.7	58.5	1.000110
29000.0	326.2	-39.7	2.6*	486.7	595.3	59.4	57.0	1.000108
29500.0	319.1	-40.9	.7*	478.6	593.7	55.8	55.9	1.000107
30000.0	312.1	-41.6		469.6	592.0	51.8	55.2	1.000105
30500.0	305.1	-42.2		460.3	592.1	50.1	57.3	1.000103
31000.0	298.3	-42.9		451.4	591.1	48.7	59.5	1.000101
31500.0	291.6	-44.2		443.8	589.4	49.6	61.3	1.000099
32000.0	285.0	-45.5		436.2	587.8	50.5	62.7	1.000097
32500.0	278.6	-46.8		428.8	586.1	51.7	59.1	1.000096
33000.0	272.3	-48.2		421.6	584.4	53.2	55.4	1.000094
33500.0	266.1	-49.5		414.5	582.7	54.5	47.5	1.000092
34000.0	260.1	-50.0		406.1	581.9	50.4	39.6	1.000090
34500.0	254.1	-50.4		397.3	581.5	57.0	32.0	1.000088
35000.0	248.2	-50.7		388.7	581.1	57.9	24.5	1.000087
35500.0	242.5	-50.8		380.0	580.9	40.7	20.6	1.000085
36000.0	236.9	-51.0		371.6	580.6	50.7	18.2	1.000083
36500.0	231.5	-51.2		363.3	580.4	19.7	18.1	1.000081
37000.0	226.1	-50.9		354.5	580.7	9.0	18.8	1.000079
37500.0	220.9	-50.7		346.0	581.0	8.5	17.3	1.000077
38000.0	215.8	-51.4		339.0	580.2	6.0	15.6	1.000075
38500.0	210.8	-52.0		332.1	579.5	6.0	14.5	1.000074
39000.0	205.9	-52.7		325.4	578.5	4.0	13.2	1.000072
39500.0	201.1	-53.3		316.8	577.6	3.0	11.5	1.000071
40000.0	196.5	-53.6		311.6	577.2	351.4	10.0	1.000069
40500.0	191.9	-53.8		304.7	577.0	352.9	9.1	1.000068
41000.0	187.4	-53.4		297.1	577.5	312.5	9.2	1.000066
41500.0	183.1	-53.1		289.8	577.9	291.9	9.1	1.000065
42000.0	178.8	-52.7		282.6	578.4	274.0	10.6	1.000063
42500.0	174.6	-52.4		275.6	578.8	261.2	11.9	1.000061
43000.0	170.6	-52.0		268.8	579.5	251.0	12.8	1.000060
43500.0	166.6	-52.5		262.0	576.7	244.1	13.8	1.000059

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

UPPER AIR DATA
051010000/
LC-37

STATION ALTITUDE 4051.37 FEET MSL
20 FEB. 42 0800 HRS MS
ASCENSION NO. 7

GEOMETRIC ALTITUDE
MSL FEET

TEMPERATURE
AIR DEGREE
CENTIGRADE

REL. HUM.
PERCENT

DENSITY
GRAMS PER
CUBIC METER

SPEED OF
SOUND
KILOMETERS
PER HOUR

WIND DIRECTION
(DEGREES TRUE)

WIND SPEED
KILOMETERS
PER HOUR

INDEX
OF
REFRACTION

TABLE 16 Cont'd

44000.0 162.7 -53.0 257.5 570.0 243.2 14.3 1.000057

44500.0 150.9 -53.5 252.1 571.4 242.5 14.8 1.000056

45000.0 155.2 -54.0 246.8 570.7 245.0 16.6 1.000055

45500.0 151.6 -54.6 241.7 570.0 247.7 18.7 1.000054

46000.0 148.1 -55.2 236.7 575.1 250.0 20.9 1.000053

46500.0 144.6 -56.0 231.9 574.1 254.0 23.2 1.000052

47000.0 141.1 -56.8 227.2 573.0 257.0 25.6 1.000051

47500.0 137.8 -57.6 222.6 572.0 258.5 26.8 1.000050

48000.0 134.5 -58.4 218.2 570.9 258.0 27.8 1.000049

48500.0 131.3 -59.2 213.0 569.9 262.6 27.4 1.000048

49000.0 128.2 -59.9 209.5 568.9 271.4 25.9 1.000047

49500.0 125.1 -60.6 205.0 568.0 280.8 25.0 1.000046

50000.0 122.1 -61.1 200.5 567.3 289.6 24.3 1.000045

50500.0 119.1 -61.6 196.1 566.6 298.0 24.1 1.000044

51000.0 116.2 -62.1 191.8 566.0 295.9 22.0 1.000043

51500.0 113.4 -62.6 187.6 565.3 290.5 19.7 1.000042

52000.0 110.6 -63.1 183.5 564.6 280.2 17.2 1.000041

52500.0 108.0 -63.6 179.5 563.9 282.2 14.4 1.000040

53000.0 105.3 -64.1 175.5 563.2 277.7 12.2 1.000039

53500.0 102.8 -64.6 171.7 562.6 277.7 11.8 1.000038

54000.0 100.3 -65.1 167.9 561.9 277.7 11.5 1.000037

54500.0 97.8 -65.6 164.2 561.2 278.8 12.1 1.000037

55000.0 95.4 -66.1 160.5 560.6 280.2 13.2 1.000036

55500.0 93.0 -66.6 156.9 559.9 281.0 14.2 1.000035

56000.0 90.7 -66.5 153.0 560.1 278.1 14.1 1.000034

56500.0 88.5 -65.4 148.4 561.5 275.2 14.0 1.000033

57000.0 86.3 -64.3 144.0 563.0 270.2 13.7 1.000032

57500.0 84.2 -64.2 140.4 563.1 279.4 13.4 1.000031

58000.0 82.2 -64.5 137.2 562.7 281.2 13.1 1.000031

58500.0 80.1 -64.8 134.0 562.3 278.4 13.0 1.000030

59000.0 78.2 -65.0 130.8 562.1 275.5 13.0 1.000029

59500.0 76.3 -65.2 127.7 561.8 277.0 11.8 1.000028

60000.0 74.4 -65.4 124.7 561.6 279.0 10.5 1.000028

60500.0 72.6 -65.5 121.7 561.3 280.0 9.1 1.000027

61000.0 70.8 -65.7 118.9 561.1 287.9 7.8 1.000026

61500.0 69.0 -65.7 115.9 561.2 283.0 6.9 1.000026

62000.0 67.4 -65.4 113.0 561.5 284.7 6.4 1.000025

62500.0 65.7 -65.2 110.1 561.6 287.7 6.2 1.000025

63000.0 64.1 -65.0 107.3 562.1 287.7 5.2 1.000024

63500.0 62.5 -64.8 104.5 562.4 284.9 5.0 1.000023

STATION ALTITUDE 4051.37 FEET MSL
20 FEB. 42 0800 HRS MSL
ASCENSION NO. 7

UPPER AIR DATA
0510180007
LC-37

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

TABLE 16 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	"IND DATA" DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
64000.0	61.0	-64.5		101.9	562.7	59.0	5.0	1.000023
64500.0	59.5	-64.3		99.3	563.0	73.3	5.4	1.000022
65000.0	58.1	-64.1		96.7	563.3	98.2	5.3	1.000022
65500.0	56.6	-63.8		94.3	563.6	118.4	3.1	1.000021
66000.0	55.3	-63.6		91.9	563.9	167.2	3.3	1.000020
66500.0	53.9	-63.4		89.5	564.2	208.7	5.5	1.000020
67000.0	52.6	-63.2		87.2	564.5	207.7	7.0	1.000019
67500.0	51.3	-62.9		85.0	564.8	207.0	8.6	1.000019
68000.0	50.1	-62.7		82.9	565.1	206.3	7.8	1.000018
68500.0	48.9	-62.0		80.6	565.0	205.1	5.8	1.000018
69000.0	47.7	-61.4		78.4	567.0	202.0	3.9	1.000017
69500.0	46.5	-60.7		76.3	567.9	190.5	2.7	1.000017
70000.0	45.4	-60.0		74.2	568.8	162.4	1.8	1.000017
70500.0	44.3	-59.3		72.2	569.7	120.9	1.8	1.000016
71000.0	43.3	-58.6		70.2	570.6	107.5	2.5	1.000016
71500.0	42.2	-58.3		66.5	571.0	100.3	3.3	1.000015
72000.0	41.2	-58.3		66.8	571.0	97.2	4.1	1.000015
72500.0	40.2	-58.3		65.3	571.0	97.5	5.0	1.000015
73000.0	39.3	-58.3		63.7	571.0	97.0	5.9	1.000014
73500.0	38.4	-58.3		62.2	571.0	98.3	6.6	1.000014
74000.0	37.4	-58.3		60.7	571.0	101.7	6.1	1.000013
74500.0	36.6	-58.3		59.3	571.0	105.9	5.5	1.000013
75000.0	35.7	-58.3		57.9	571.0	110.9	5.0	1.000013
75500.0	34.8	-58.1		56.5	571.2	129.7	3.7	1.000013
76000.0	34.0	-58.0		55.1	571.5	164.1	3.0	1.000012
76500.0	33.2	-57.8		53.7	571.7	196.5	3.7	1.000012
77000.0	32.4	-57.6		52.4	571.9	204.9	3.0	1.000012
77500.0	31.7	-57.5		51.1	572.1	203.7	1.6	1.000011
78000.0	30.9	-57.3		49.9	572.3	155.3	.2	1.000011
78500.0	30.2	-57.1		48.7	572.6	35.3	.2	1.000011
79000.0	29.5	-56.9		47.5	572.8	215.3	.4	1.000011
79500.0	28.8	-56.7		46.3	573.1	215.3	.9	1.000010
80000.0	28.1	-56.5		45.2	573.4	213.3	1.3	1.000010
80500.0	27.5	-56.3		44.1	573.7	93.5	.8	1.000010
81000.0	26.8	-56.1		43.0	574.0	65.8	2.5	1.000010
81500.0	26.2	-55.9		42.0	574.3	61.1	4.3	1.000009
82000.0	25.6	-55.6		41.0	574.6	57.1	6.8	1.000009
82500.0	25.0	-55.4		40.0	574.8	34.5	9.5	1.000009
83000.0	24.4	-55.2		39.0	575.1	53.1	12.3	1.000009
83500.0	23.8	-55.0		38.0	575.4	52.5	14.4	1.000008

STATION ALTITUDE 4051.37 FEET MSL
20 FEB. 62 0800 HRS MST
ASCENSION NO. 7

UPPER AIR DATA
0510160007
LC-37

CLOUDS, COORDINATES
32.40175 LAT DEG
106.31232 LONG DEG

TABLE 16 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	"J" CORRECTION LOG (IN)	"J" DATA SPEED KNOTS	INDEX OF REFRACTION
84000.0	23.3	-54.8		37.1	575.7	53.0	13.4	1.0000008
84500.0	22.7	-54.6		36.2	570.0	53.6	12.4	1.0000008
85000.0	22.2	-54.3		35.3	565.3	54.3	11.4	1.0000008
85500.0	21.7	-54.1		34.5	560.6	55.0	9.9	1.0000008
86000.0	21.2	-53.9		33.6	556.8	55.6	8.3	1.0000007
86500.0	20.7	-53.7		32.8	552.1	56.6	6.7	1.0000007
87000.0	20.2	-53.5		32.0	547.4	58.6	5.3	1.0000007
87500.0	19.7	-53.2		31.2	542.8	68.4	4.3	1.0000007
88000.0	19.3	-52.9		30.5	538.1	73.3	3.4	1.0000007
88500.0	18.8	-52.6		29.7	533.5	115.2	2.9	1.0000007
89000.0	18.4	-52.3		29.0	528.9	93.4	2.9	1.0000006
89500.0	18.0	-52.0		28.3	524.3	72.7	3.3	1.0000006
90000.0	17.5	-51.7		27.6	519.7	57.9	4.0	1.0000006
90500.0	17.1	-51.4		26.9	515.1	70.5	4.8	1.0000006
91000.0	16.7	-51.1		26.3	510.5	90.1	5.9	1.0000006
91500.0	16.4	-50.8		25.6	505.9	98.9	7.3	1.0000006
92000.0	16.0	-50.5		25.0	501.2			1.0000006
92500.0	15.6	-50.4		24.4	501.4			1.0000005
93000.0	15.3	-50.4		23.9	501.4			1.0000005
93500.0	14.9	-50.4		23.3	501.4			1.0000005

STATION ALTITUDE 4051.37 FEET SL
 20 FEB. 62 0800 HRS MS
 ASCENSION NO. 7

MANDATORY LEVELS
 051018000;
 LC-37

COORDINATES
 32.40175 LAT DEG
 106.31232 LONG DEG

TABLE 17

PRESSURE GEOPOTENTIAL		TEMPERATURE		HUMIDITY		WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES (TN)	SPEED KNOTS	
850.0	5078.	9.1	-1.0	49.	350.3	9.1	
800.0	6722.	7.2	-6.5	37.	355.3	10.1	
750.0	8456.	4.5	-2.5	60.	345.1	10.7	
700.0	10289.	.9	-6.6	57.	17.6	9.2	
650.0	12235.	-1.9	-14.8	36.	45.4	13.4	
600.0	14303.	-6.9	-20.1	34.	50.9	13.5	
550.0	16514.	-11.3	-19.6	50.	51.9	13.3	
500.0	18892.	-16.0	-35.3	17.	71.3	21.5	
450.0	21464.	-22.5	-41.9	15.	69.7	22.1	
400.0	24267.	-28.2	-46.7	15.	56.3	40.7	
350.0	27360.	-35.8	-57.3	9.**	58.3	50.0	
300.0	30818.	-42.6			49.0	56.9	
250.0	34772.	-50.6			57.5	27.0	
200.0	39527.	-53.5			357.6	11.2	
175.0	42348.	-52.4			262.7	11.8	
150.0	45607.	-54.8			248.6	19.6	
125.0	49380.	-60.6			280.8	25.0	
100.0	53889.	-65.2			277.8	11.5	
80.0	58345.	-64.8			276.3	13.0	
70.0	61012.	-65.8			303.4	7.6	
60.0	64094.	-64.4			67.4	5.3	
50.0	67766.	-62.7			206.3	7.8	
40.0	72341.	-58.3			97.6	5.2	
30.0	78290.	-57.1			35.3	.1	
25.0	82090.	-55.4			54.0	9.0	
20.0	86791.	-53.4			71.1	5.0	
15.0	92905.	-50.4					

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.00 FEET MSL
20 FEB. 62 0910 HRS MST
ASCENSION NO. 8

SIGNIFICANT LEVEL DATA
0510030000
JALLEN
TABLE 18

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

PRESSURE	GEOMETRIC ALTITUDE	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT
MILLIBARS	MSL FEET		
382.5	4051.0	14.2	-2.7
372.8	4155.8	11.8	-4.3
856.0	5081.4	10.8	-4.8
815.5	6209.3	7.9	-7.4
786.8	7179.5	7.9	-10.4
740.8	8900.4	4.4	-12.9
700.0	10308.6	2.1	-15.8
668.6	11522.4	.7	-16.1
613.5	13769.4	-4.6	-21.6
599.1	14382.6	-5.8	-17.8
565.3	15868.5	-9.4	-24.1
500.0	18951.5	-15.5	-32.8
461.4	20929.7	-19.7	-35.4
444.0	21864.4	-21.9	-36.2
400.0	24359.6	-28.2	-42.4
385.6	25210.3	-29.7	-38.4
373.9	25944.1	-30.7	-41.6
320.3	29495.8	-39.4	-49.5
307.0	30961.8	-42.5	
277.1	32717.2	-45.3	
256.4	34404.0	-50.5	
250.0	34945.9	-51.3	
237.4	36049.2	-52.7	
211.2	38499.9	-59.2	
200.0	39630.1	-57.2	
186.7	41077.6	-53.2	
177.5	42149.2	-53.7	
166.5	43254.3	-52.6	
150.0	45716.3	-55.2	
121.3	50119.0	-61.8	
118.4	50613.6	-61.4	
108.7	52347.8	-64.9	
100.0	54025.0	-65.3	
85.1	57277.2	-63.9	
70.0	61200.9	-66.9	
63.7	63081.7	-67.0	
50.0	67959.4	-62.9	
40.5	72303.7	-57.4	
30.0	76572.2	-57.5	
24.6	82714.7	-57.9	

STATION ALTITUDE 4051.00 FEET SL
 20 FEB. 82 0910 HRS EST
 ASCENSION NO. 8

SIGNIFICANT LEVEL DATA
 0510030000
 JALLFN

GEODETIC COORDINATES
 33.10712 LAT DEG
 100.49311 LONG DEG

TABLE 18 Cont'd

PRESSURE GEOMETRIC MILLIBARS MFL FEET	TEMPERATURE		REL. HUM. PERCENT
	AIR	DEWPOINT DEGREES CENTIGRADE	
20.0 87099.0	-51.4		
15.8 92187.1	-49.7		
14.4 94190.5	-51.4		
13.2 96084.1	-46.3		
10.7 100703.8	-46.6		

STATION ALTITUDE 4051.0 FEET MSL
20 FEB. 62 0910 HRS MST
ASCENSION NO. 8

UPPER AIR DATA
0510000000
JALLEN

GEODETIC COORDINATES
33.10712 LAT DEG
106.49511 LONG DEG

TABLE 19

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREEES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND M/SEC	WIND DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
4051.0	882.5	14.2	31.0	1067.6	661.1	000	7.0	1.000261
4500.0	860.2	11.6	32.2	1060.2	658.0	49.6	6.8	1.000257
5000.0	852.5	10.9	32.9	1043.5	657.2	37.0	6.8	1.000253
5500.0	837.0	9.7	33.0	1029.0	655.0	20.2	7.1	1.000248
6000.0	821.8	8.4	33.0	1015.0	654.5	16.1	7.7	1.000244
6500.0	806.8	7.9	30.9	990.5	653.0	16.9	10.9	1.000238
7000.0	792.0	7.9	27.3	980.4	652.0	18.0	14.6	1.000232
7500.0	777.5	7.2	26.2	964.8	652.7	10.0	16.3	1.000228
8000.0	763.2	6.1	26.5	950.8	651.5	3.5	17.9	1.000224
8500.0	749.1	5.0	26.8	936.9	650.2	2.7	18.1	1.000220
9000.0	735.3	4.1	26.5	922.9	649.0	3.5	17.6	1.000216
9500.0	721.6	3.3	25.1	908.3	648.1	9.2	15.3	1.000212
10000.0	706.2	2.6	23.8	893.9	647.2	13.1	11.9	1.000208
10500.0	695.0	1.9	23.6	879.5	645.4	15.0	7.5	1.000204
11000.0	681.9	1.3	25.3	864.8	645.7	20.0	5.3	1.000201
11500.0	669.2	.7	26.9	850.3	645.0	45.5	4.3	1.000198
12000.0	650.5	-.4	26.6	837.8	643.7	41.6	4.6	1.000195
12500.0	644.0	-1.6	26.1	825.6	642.2	37.0	5.3	1.000191
13000.0	631.8	-2.8	25.7	813.5	640.8	32.4	6.3	1.000188
13500.0	619.9	-4.0	25.2	801.6	639.4	30.4	7.5	1.000185
14000.0	608.0	-5.1	23.9	789.5	638.1	29.6	9.0	1.000182
14500.0	596.4	-6.1	37.3	777.2	636.9	28.7	10.1	1.000181
15000.0	584.8	-7.3	34.3	765.7	635.5	27.9	11.0	1.000177
15500.0	573.5	-8.5	31.2	754.4	634.0	30.6	12.1	1.000175
16000.0	562.3	-9.7	28.7	743.1	632.0	34.4	13.4	1.000170
16500.0	551.3	-10.6	27.4	731.2	631.3	38.9	14.7	1.000167
17000.0	540.4	-11.6	26.1	719.6	630.1	43.0	16.0	1.000164
17500.0	529.7	-12.6	24.8	708.1	628.9	42.3	16.1	1.000161
18000.0	519.3	-13.6	23.5	696.8	627.7	42.3	16.1	1.000158
18500.0	509.1	-14.6	22.2	685.7	626.5	45.5	15.7	1.000155
19000.0	499.0	-15.6	21.0	674.8	625.3	48.2	15.4	1.000152
19500.0	489.0	-16.7	21.0	664.0	624.0	49.5	15.3	1.000150
20000.0	479.2	-17.7	21.0	653.3	622.7	48.9	16.5	1.000147
20500.0	469.5	-18.8	21.0	642.9	621.4	46.3	19.4	1.000145
21000.0	460.1	-19.9	21.0	632.6	620.1	47.4	23.5	1.000142
21500.0	450.7	-21.0	21.0	622.7	618.6	51.1	29.0	1.000140
22000.0	441.5	-22.2	21.2	612.9	617.2	54.1	33.1	1.000138
22500.0	432.4	-23.5	21.8	603.2	615.0	57.7	33.3	1.000136
23000.0	423.4	-24.8	22.4	593.7	614.0	61.1	33.2	1.000133
23500.0	414.6	-26.0	23.0	584.4	612.5	64.0	32.1	1.000131

STATION ALTITUDE 4051.00 FEET MSL
20 FEB. 82 0910 HRS MSJ
ASCENSION NO. 8

UPPER AIR DATA

0510000000
JALLEN

TABLE 19 Cont'd

GEODETIC COORDINATES
33.10712 LAT DEG
106.49511 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIR, CTG, MAG DEGREES(TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
24000.0	400.1	-27.3	23.6	575.3	610.9	04.3	34.1	1.000129
24500.0	397.6	-28.4	27.0	566.0	609.5	02.7	38.3	1.000127
25000.0	389.3	-29.3	37.5	550.1	608.4	50.4	41.6	1.000125
25500.0	381.1	-30.1	38.4	540.1	607.4	54.2	44.9	1.000123
26000.0	373.0	-30.8	33.0	530.2	606.5	49.5	46.9	1.000120
26500.0	365.0	-32.1	33.0	527.3	604.9	45.0	48.5	1.000118
27000.0	357.1	-33.3	33.0	518.6	603.4	43.7	48.2	1.000116
27500.0	349.4	-34.5	33.0	510.0	601.9	42.7	48.0	1.000114
28000.0	341.9	-35.7	33.0	501.6	600.5	43.3	47.8	1.000112
28500.0	334.5	-37.0	33.0	493.3	598.7	44.9	46.9	1.000110
29000.0	327.3	-38.2	33.0	483.2	597.2	47.0	45.5	1.000109
29500.0	320.2	-39.4	32.9**	477.2	595.6	51.2	43.9	1.000107
30000.0	313.2	-40.5	21.7**	468.8	594.3	55.3	42.3	1.000105
30500.0	306.3	-41.5	10.4**	460.6	592.9	55.5	41.9	1.000103
31000.0	299.5	-42.6		452.4	591.6	54.0	41.7	1.000101
31500.0	292.8	-43.4		443.9	590.0	47.3	41.5	1.000099
32000.0	286.2	-44.2		435.4	588.5	40.1	42.2	1.000097
32500.0	279.8	-45.0		427.2	586.5	34.0	44.5	1.000095
33000.0	273.5	-46.2		419.8	585.9	30.0	47.1	1.000094
33500.0	267.3	-47.7		413.0	584.9	30.1	49.4	1.000092
34000.0	261.2	-49.3		406.4	582.9	29.0	51.2	1.000091
34500.0	255.3	-50.6		399.6	581.1	29.3	51.4	1.000089
35000.0	249.4	-51.4		391.7	580.2	29.2	51.0	1.000087
35500.0	243.6	-52.0		383.7	579.3	31.1	48.9	1.000085
36000.0	237.9	-52.6		375.9	578.5	33.4	43.0	1.000084
36500.0	232.3	-53.9		369.2	576.9	37.0	39.7	1.000082
37000.0	226.9	-55.2		362.7	575.1	42.1	36.7	1.000081
37500.0	221.5	-56.5		356.3	573.4	42.9	34.4	1.000079
38000.0	216.3	-57.9		350.0	571.0	43.0	31.7	1.000078
38500.0	211.2	-59.2		343.9	569.8	37.0	27.3	1.000077
39000.0	206.2	-60.3		334.3	571.0	29.9	23.3	1.000074
39500.0	201.3	-61.4		325.0	572.2	25.4	20.2	1.000072
40000.0	196.5	-62.2		315.5	573.0	18.2	16.4	1.000070
40500.0	191.9	-64.8		306.2	575.7	2.0	11.5	1.000068
41000.0	187.4	-63.4		297.1	577.5	26.2	9.1	1.000066
41500.0	183.0	-63.4		290.1	577.5	267.5	12.2	1.000065
42000.0	178.8	-63.6		283.7	577.2	275.5	15.6	1.000063
42500.0	174.6	-63.4		276.7	577.0	270.4	15.7	1.000062
43000.0	170.5	-62.9		269.7	576.2	261.0	15.1	1.000060
43500.0	166.6	-62.9		263.4	576.2	291.9	14.1	1.000059

** AT LEAST ONE ASSUMED REL. HUM. VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.00 FEET MSL
20 FEB. 62 0910 HRS MST
ASCENSION NO. 8

UPPER AIR DATA
051003000
JALLEN

TABLE 19 Cont'd

GEODETIC COORDINATES
33.10712 LAT ULC
106.49311 LON ULC

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (IN) SPEED (KNOTS)	INDEX OF REFRACTION
44000.0	162.7	-53.4			257.9	577.5	297.9	1.000037
44500.0	158.9	-53.9			252.4	570.8	296.6	1.000036
45000.0	155.2	-54.4			247.1	570.1	295.9	1.000035
45500.0	151.5	-55.0			242.0	573.4	295.6	1.000034
46000.0	148.0	-55.6			237.0	574.6	295.0	1.000033
46500.0	144.4	-56.4			232.1	573.6	290.7	1.000032
47000.0	141.0	-57.1			227.4	572.6	297.8	1.000031
47500.0	137.6	-57.9			222.7	571.6	299.0	1.000030
48000.0	134.4	-58.6			218.2	570.6	300.5	1.000049
48500.0	131.2	-59.4			213.7	569.6	302.6	1.000048
49000.0	128.0	-60.1			209.4	568.6	305.4	1.000047
49500.0	125.0	-60.9			205.1	567.6	306.5	1.000046
50000.0	122.0	-61.6			200.9	566.6	305.9	1.000045
50500.0	119.1	-61.5			196.0	566.0	304.9	1.000044
51000.0	116.2	-62.2			191.8	565.9	303.2	1.000043
51500.0	113.3	-63.2			188.0	564.5	301.5	1.000042
52000.0	110.6	-64.2			184.4	563.1	298.0	1.000041
52500.0	107.9	-64.9			180.5	562.1	295.9	1.000040
53000.0	105.2	-65.1			176.2	562.0	295.0	1.000039
53500.0	102.6	-65.2			171.9	561.8	295.0	1.000038
54000.0	100.1	-65.3			167.8	561.7	288.2	1.000037
54500.0	97.7	-65.1			163.5	561.9	287.7	1.000036
55000.0	95.3	-64.9			159.4	562.2	286.9	1.000035
55500.0	92.9	-64.7			155.3	562.5	285.9	1.000035
56000.0	90.7	-64.4			151.3	562.8	284.1	1.000034
56500.0	88.4	-64.2			147.5	563.1	280.2	1.000033
57000.0	86.3	-64.0			143.7	563.4	276.8	1.000032
57500.0	84.2	-64.1			140.2	563.3	280.6	1.000031
58000.0	82.1	-64.5			137.0	562.9	285.5	1.000031
58500.0	80.1	-64.8			133.9	562.3	285.7	1.000030
59000.0	78.1	-65.2			130.9	561.8	285.0	1.000029
59500.0	76.2	-65.6			127.9	561.5	275.3	1.000028
60000.0	74.3	-66.0			125.0	560.7	259.1	1.000028
60500.0	72.5	-66.4			122.1	560.2	269.1	1.000027
61000.0	70.7	-66.7			119.3	559.7	246.2	1.000027
61500.0	69.0	-66.9			116.5	559.5	243.2	1.000026
62000.0	67.3	-66.9			113.6	559.4	240.1	1.000025
62500.0	65.6	-67.0			110.8	559.4	238.9	1.000025
63000.0	64.0	-67.0			108.1	559.4	242.5	1.000024
63500.0	62.4	-68.6			105.3	559.8	247.7	1.000023

STATION ALTITUDE 4051.00 FEET MSL
 20 FEB. 82 0910 HRS MST
 ASCENSION NO. 8

UNPLD AIR DATA
 0510030000
 JALLEN

TABLE 19 Cont'd

GEODETIC COORDINATES
 33.10712 LAT DEG
 106.43511 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (TRUE)	WIND SPEED KNOTS	INDEX OF REFRACTION
04000.0	60.9	-66.2		102.5	560.4	203.4	5.3	1.000023
04500.0	59.4	-65.8		99.7	561.0	207.4	4.5	1.000022
05000.0	57.9	-65.4		97.1	561.5	297.3	4.4	1.000022
05500.0	56.5	-65.0		94.5	562.1	296.9	4.2	1.000021
06000.0	55.1	-64.5		92.0	562.7	294.8	4.1	1.000020
06500.0	53.8	-64.1		89.6	563.2	293.1	4.3	1.000020
07000.0	52.4	-63.7		87.2	563.8	272.8	4.6	1.000019
07500.0	51.2	-63.3		84.9	564.4	268.9	4.5	1.000019
08000.0	49.9	-62.8		82.7	565.0	267.5	4.1	1.000018
08500.0	48.7	-62.2		80.4	565.8	265.2	3.6	1.000018
09000.0	47.5	-61.6		78.3	566.7	254.1	3.0	1.000017
09500.0	46.4	-60.9		76.2	567.5	258.0	2.5	1.000017
70000.0	45.3	-60.3		74.1	568.3	215.4	2.2	1.000016
70500.0	44.2	-59.7		72.1	569.2	186.0	2.3	1.000016
71000.0	43.1	-59.1		70.2	570.0	163.3	2.9	1.000015
71500.0	42.1	-58.4		68.3	570.9	146.4	4.3	1.000015
72000.0	41.1	-57.8		66.5	571.7	137.5	6.5	1.000015
72500.0	40.1	-57.4		64.8	572.2	135.1	8.7	1.000014
73000.0	39.2	-57.4		63.3	572.2	129.7	9.8	1.000014
73500.0	38.2	-57.4		61.8	572.2	126.6	10.5	1.000014
74000.0	37.3	-57.4		60.3	572.2	124.2	11.3	1.000013
74500.0	36.5	-57.4		58.9	572.2	122.3	6.5	1.000013
75000.0	35.6	-57.4		57.5	572.2	108.5	1.5	1.000013
75500.0	34.8	-57.5		56.1	572.2	314.5	3.4	1.000013
76000.0	33.9	-57.5		54.8	572.2	310.0	4.5	1.000012
76500.0	33.1	-57.5		53.5	572.1	308.5	5.6	1.000012
77000.0	32.3	-57.5		52.2	572.1	308.9	6.1	1.000012
77500.0	31.6	-57.5		51.0	572.1	343.0	3.4	1.000011
78000.0	30.8	-57.5		49.8	572.1	49.0	4.0	1.000011
78500.0	30.1	-57.5		48.6	572.1	72.5	6.8	1.000011
79000.0	29.4	-57.5		47.5	572.0	78.4	8.0	1.000011
79500.0	28.7	-57.6		46.4	572.0	82.7	9.2	1.000010
80000.0	28.0	-57.6		45.3	571.9	86.2	10.1	1.000010
80500.0	27.4	-57.7		44.2	571.9	89.9	9.8	1.000010
81000.0	26.7	-57.7		43.2	571.9	93.9	9.6	1.000010
81500.0	26.1	-57.8		42.2	571.7	96.8	9.1	1.000009
82000.0	25.5	-57.8		41.2	571.7	100.0	8.3	1.000009
82500.0	24.9	-57.9		40.2	571.6	113.9	7.6	1.000009
83000.0	24.3	-57.5		39.2	572.1	120.4	7.1	1.000009
83500.0	23.7	-56.7		38.2	573.1	138.0	6.4	1.000008

STATION ALTITUDE 4051.00 FEET MSL
20 FEB. 62 0910 HRS NST
ASCENSION NO. 8

UNPLP AIR DATA
051003000,
JALLEN

CLOUD 11, COORDINATES
33.10/12 LAT DEG
106.49311 LONG DEG

TABLE 19 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION, SPEED GUSTS (10) KNOTS	INDEX OF REFRACTION
84000.0	23.2	-56.0		37.1	574.1	152.7	1.000004
84500.0	22.6	-55.3		36.1	573.1	157.6	1.000004
85000.0	22.1	-54.5		35.2	572.0	162.1	1.000004
85500.0	21.6	-53.8		34.2	571.0	166.7	1.000004
86000.0	21.1	-53.0		33.3	570.0	171.2	1.000007
86500.0	20.6	-52.3		32.5	570.0	175.7	1.000007
87000.0	20.1	-51.5		31.6	570.0	180.2	1.000007
87500.0	19.6	-51.3		30.8	580.5	184.7	1.000007
88000.0	19.2	-51.1		30.1	580.5	189.2	1.000007
88500.0	18.7	-50.9		29.4	580.7	193.7	1.000007
89000.0	18.3	-50.8		28.7	581.0	198.2	1.000006
89500.0	17.9	-50.6		28.0	581.2	202.7	1.000006
90000.0	17.5	-50.4		27.3	581.4	207.2	1.000006
90500.0	17.1	-50.3		26.7	581.6	211.7	1.000006
91000.0	16.7	-50.1		26.1	581.8	216.2	1.000006
91500.0	16.3	-49.9		25.5	582.1	220.7	1.000006
92000.0	15.9	-49.8		24.9	582.3	225.2	1.000006
92500.0	15.6	-50.0		24.3	582.0	229.7	1.000005
93000.0	15.2	-50.4		23.8	581.5	234.2	1.000005
93500.0	14.9	-50.8		23.3	580.9	238.7	1.000005
94000.0	14.5	-51.2		22.8	580.3	243.2	1.000005
94500.0	14.2	-50.6		22.2	581.2	247.7	1.000005
95000.0	13.9	-49.2		21.6	583.0	252.2	1.000005
95500.0	13.6	-47.9		21.0	584.7	256.7	1.000005
96000.0	13.3	-46.5		20.4	586.5	261.2	1.000005
96500.0	13.0	-46.3		19.9	586.7	265.7	1.000004
97000.0	12.7	-46.4		19.4	586.7	270.2	1.000004
97500.0	12.4	-46.4		19.0	586.0	274.7	1.000004
98000.0	12.1	-46.4		18.6	586.0	279.2	1.000004
98500.0	11.8	-46.5		18.2	586.0	283.7	1.000004
99000.0	11.6	-46.5		17.8	586.5	288.2	1.000004
99500.0	11.3	-46.5		17.4	586.5	292.7	1.000004
100000.0	11.0	-46.6		17.0	586.4	297.2	1.000004
100500.0	10.8	-46.6		16.6	586.4	301.7	1.000004

STATION ALTITUDE 4051.00 FEET MSL
20 FEB. 62
ASCENSION NO. 8

MANDATORY LEVELS
0510030000
JALLEN

GEOLIT. COORDINATES
33.10712 LAT DEG
106.49511 LONG DEG

TABLE 20

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUMID.		WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES(TI)	SPEED KNOTS	
850.0	5078.	10.8	-4.8	33.	35.7	0.8	
800.0	6724.	7.9	-8.9	29.	17.5	12.6	
750.0	8463.	5.1	-12.4	27.	2.7	10.1	
700.0	10209.	2.1	-16.8	25.	14.1	9.2	
650.0	12252.	-1.0	-17.9	20.	39.8	4.8	
600.0	14328.	-5.7	-18.0	37.	29.0	7.8	
550.0	16544.	-10.8	-26.0	27.	39.4	14.0	
500.0	18926.	-15.5	-32.8	21.	48.0	15.5	
450.0	21507.	-21.1	-37.6	21.	51.3	29.3	
400.0	24321.	-28.2	-42.4	24.	63.2	37.0	
350.0	27428.	-34.4	-45.0	33.	42.7	40.0	
300.0	30903.	-42.5			55.3	41.8	
250.0	34872.	-51.3			29.0	51.5	
200.0	39538.	-57.2			24.2	19.5	
175.0	42345.	-53.4			276.2	15.7	
150.0	45597.	-55.2			295.5	10.1	
125.0	49366.	-60.9			300.3	14.3	
100.0	53862.	-65.3			208.2	12.9	
80.0	58335.	-64.8			285.7	0.8	
70.0	60905.	-66.9			245.3	0.7	
60.0	64053.	-66.0			274.3	4.8	
50.0	67709.	-62.9			267.7	4.1	
40.0	72280.	-57.4			132.9	0.8	
30.0	78243.	-57.5			73.0	0.9	
25.0	82018.	-57.9			112.8	7.8	
20.0	86699.	-51.4			110.9	2.9	
15.0	92855.	-50.7			154.3	11.3	

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.00 FEET MSL
20 FEB. 82 0911 HRS MST
ASCENSION NO. 65

SIGNIFICANT LEVEL DATA
0510020000
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

TABLE 21

PRESSURE, GEOMETRIC ALTITUDE MILLIBARS, MSL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
884.4	12.2	50.0
873.6	11.1	41.0
856.0	10.1	40.0
825.8	9.7	34.0
797.8	8.7	20.0
725.0	4.3	45.0
700.0	2.7	31.0
681.4	1.8	29.0
638.2	-2.4	31.0
613.0	-5.1	51.0
604.8	-5.9	45.0
588.2	-6.6	30.0
547.6	-10.4	35.0
531.8	-12.4	42.0
500.0	-15.9	22.0
400.0	-27.3	22.0
357.8	-33.8	30.0
331.8	-37.9	28.0
307.2	-42.4	
300.0	-42.0	
289.4	-42.6	
250.0	-51.1	
223.0	-55.3	
218.6	-53.9	
216.6	-51.5	
200.0	-52.0	
194.6	-53.3	
190.0	-51.8	
150.6	-53.1	
150.0	-50.7	
121.6	-60.8	
111.2	-61.1	
100.0	-64.0	
80.2	-67.2	
70.0	-65.5	
55.6	-65.5	
50.0	-62.1	
42.0	-58.2	
33.2	-50.5	
30.9	-55.8	

GEOLITIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

SIGNIFICANT LEVEL DATA
 0510020005
 WHITE SANDS

TABLE 21 Cont'd

STATION ALTITUDE 3909.00 FEET ASL
 20 FEB. 82 0911 HRS MST
 ASCENSION NO. 65

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FELT	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES	DEWPOINT CENTIGRADE	
26.6	61238.8	-55.8		
21.8	85461.6	-52.6		
20.0	87301.7	-53.2		
17.0	90775.1	-52.3		
15.1	93330.1	-49.5		

STATION ALTITUDE 3989.00 FEET MSL
20 FEB. 82 0911 HRS MST
ASCENSION NO. 65

UPPER AIR DATA

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

TABLE 22

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUMID. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIR. DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
3989.0	884.4	12.2	50.0	1070.4	659.1	00.0	8.0	1.000273
4000.0	884.0	12.2	49.7	1070.2	659.0	29.0	8.0	1.000273
4500.0	868.1	10.9	42.2	1062.2	657.3	10.0	10.5	1.000262
5000.0	852.4	10.2	45.5	1045.3	650.0	9.1	13.3	1.000260
5500.0	836.9	9.9	39.5	1027.8	650.1	4.1	16.3	1.000252
6000.0	821.7	9.6	33.1	1010.7	653.0	.7	19.3	1.000244
6500.0	806.7	9.0	29.9	994.4	654.9	33.7	20.7	1.000238
7000.0	792.0	8.4	29.3	978.0	654.1	33.9	21.5	1.000233
7500.0	777.4	7.5	32.6	963.4	653.2	33.9	19.6	1.000231
8000.0	763.1	6.6	36.0	946.5	652.2	33.1	17.5	1.000228
8500.0	749.1	5.8	39.3	933.9	651.2	33.0	16.1	1.000220
9000.0	735.3	4.9	42.6	919.5	650.3	32.0	14.7	1.000213
9500.0	721.8	4.1	42.9	903.4	649.2	.0	13.5	1.000219
10000.0	708.4	3.2	35.6	891.6	648.1	10.4	12.4	1.000212
10500.0	693.2	2.5	30.5	877.6	647.2	22.3	11.1	1.000207
11000.0	682.2	1.8	29.1	863.3	646.4	30.3	10.5	1.000202
11500.0	669.4	.7	29.5	850.7	645.0	47.1	11.5	1.000199
12000.0	656.8	-0.6	30.1	838.5	643.5	54.4	12.9	1.000196
12500.0	644.4	-1.8	30.7	826.4	642.1	52.0	14.4	1.000193
13000.0	632.2	-3.0	35.7	814.5	640.0	31.1	15.6	1.000190
13500.0	620.1	-4.3	45.3	802.6	639.1	46.9	15.2	1.000189
14000.0	608.3	-5.6	47.5	790.9	637.7	42.5	15.0	1.000180
14500.0	596.6	-6.2	39.6	777.9	636.0	37.7	15.5	1.000181
15000.0	585.1	-6.9	34.1	764.8	635.0	33.7	16.3	1.000177
15500.0	573.7	-7.9	34.3	753.0	634.7	34.0	18.2	1.000174
16000.0	562.6	-9.0	34.6	741.3	633.4	35.5	20.0	1.000171
16500.0	551.6	-10.0	34.9	729.8	632.2	38.4	20.6	1.000168
17000.0	540.9	-11.2	40.9	718.9	630.7	41.1	21.2	1.000166
17500.0	530.2	-12.6	48.0	706.3	629.1	43.7	21.0	1.000164
18000.0	519.7	-13.7	41.5	697.4	627.7	32.0	20.4	1.000160
18500.0	509.4	-14.8	35.0	686.7	626.3	39.0	20.0	1.000157
19000.0	499.3	-16.0	29.0	676.0	624.9	37.0	19.8	1.000153
19500.0	489.1	-17.0	28.3	665.0	623.6	74.7	19.9	1.000151
20000.0	479.1	-18.1	27.7	654.1	622.3	76.0	20.4	1.000148
20500.0	469.3	-19.1	27.0	643.5	621.0	77.3	20.9	1.000145
21000.0	459.7	-20.2	26.4	633.0	619.7	73.0	21.1	1.000143
21500.0	450.4	-21.2	25.7	622.6	618.4	69.4	21.3	1.000140
22000.0	441.2	-22.3	25.1	612.5	617.1	64.9	23.9	1.000138
22500.0	432.2	-23.4	24.4	602.6	615.8	61.2	27.4	1.000136
23000.0	423.3	-24.4	23.8	592.8	614.5	59.0	31.9	1.000133

STATION ALTITUDE 3989.00 FEET MSL
20 FEB. 62 0911 HRS, MST
ASCENSION NO. 65

UPPER AIR DATA
051002000J
WHITE SANDS

GEODETIC COORDINATES
32.40045 LAT N
106.37035 LONG W

TABLE 22 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CELSIUS	TEMPERATURE DEWPOINT CELSIUS	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KILOTS	AIR, CLOUD CLEAR (IN)	WIND DATA SPEED KILOTS	INCL OF REFRACTION
23500.0	414.7	-25.5	-40.4	23.1	583.1	613.2	00.0	37.4	1.000131
24000.0	400.2	-26.5	-41.5	22.5	573.7	611.9	00.5	42.3	1.000129
24500.0	397.9	-27.6	-42.5	22.4	564.4	610.5	01.7	45.2	1.000127
25000.0	389.4	-28.9	-43.0	23.9	555.3	609.9	02.9	48.2	1.000125
25500.0	381.2	-30.1	-43.5	25.5	546.3	607.4	02.0	50.2	1.000123
26000.0	373.1	-31.4	-44.1	27.0	537.5	605.8	00.7	52.0	1.000120
26500.0	365.2	-32.6	-44.7	28.5	528.9	604.3	59.3	53.5	1.000119
27000.0	357.5	-33.8	-45.3	30.0	520.4	602.7	57.9	54.5	1.000117
27500.0	349.8	-35.0	-46.6	29.4	511.7	601.2	57.1	55.4	1.000115
28000.0	342.2	-36.2	-47.8	28.8	503.1	599.7	56.1	55.4	1.000113
28500.0	334.8	-37.4	-49.0	28.2	494.7	598.2	59.0	54.3	1.000109
29000.0	327.5	-38.7	-51.0	23.3**	486.5	596.6	58.9	53.2	1.000107
29500.0	320.3	-40.0	-56.4	15.2**	478.5	594.9	57.0	53.1	1.000105
30000.0	313.3	-41.3	-63.3	7.1**	470.6	593.3	56.2	53.3	1.000103
30500.0	306.3	-42.4			462.4	591.8	54.6	53.2	1.000101
31000.0	299.5	-42.0			451.5	592.3	52.9	53.0	1.000098
31500.0	292.9	-42.4			442.2	591.8	51.0	52.6	1.000097
32000.0	286.3	-43.2			433.8	590.7	48.7	51.5	1.000095
32500.0	279.8	-44.5			426.5	589.0	46.3	50.4	1.000093
33000.0	273.5	-45.9			419.2	587.3	43.7	49.3	1.000092
33500.0	267.3	-47.2			412.2	585.6	41.0	48.2	1.000090
34000.0	261.3	-48.5			405.2	583.9	38.2	47.3	1.000087
34500.0	255.3	-49.9			398.0	582.1	35.1	43.4	1.000086
35000.0	249.5	-51.2			391.0	580.4	31.4	39.6	1.000084
35500.0	243.7	-52.1			384.0	579.3	27.4	35.7	1.000082
36000.0	238.1	-52.9			376.6	578.1	22.6	31.8	1.000080
36500.0	232.5	-53.8			369.3	576.9	19.0	28.3	1.000079
37000.0	227.1	-54.7			362.2	575.6	19.2	25.0	1.000077
37500.0	221.8	-54.8			353.9	573.7	19.5	21.6	1.000076
38000.0	216.6	-51.5			346.5	570.0	18.3	18.2	1.000074
38500.0	211.6	-51.8			339.1	579.6	16.1	14.7	1.000073
39000.0	206.7	-52.1			325.6	574.2	8.9	11.1	1.000071
39500.0	201.9	-52.5			312.0	573.7	40.4	6.5	1.000069
40000.0	197.2	-53.0			304.4	570.1	307.0	0.4	1.000068
40500.0	192.6	-52.7			296.3	571.3	254.0	9.0	1.000066
41000.0	188.2	-51.9			289.0	579.3	200.0	10.8	1.000065
41500.0	183.8	-52.0			283.1	579.1	250.0	11.9	1.000063
42000.0	179.6	-52.2			276.8	576.8	257.0	12.7	1.000062
42500.0	175.4	-52.4			270.6	573.0	254.0	14.0	1.000060
43000.0	171.3	-52.6							

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.00 FEET / SL
20 FEB. 62 0911 HRS. EST
ASCENSION NO. 65

UPPER AIR DATA
0510020005
WINDY JAMES

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

TABUL 22 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	RELATIVE HUMIDITY PERCENT	WIND SPEED KNOTS	WIND DIRECTION DEGREES (true)	WIND SPEED KNOTS	INDEX OF REFRACTION
43500.0	167.3	-52.7	264.5	570.4	253.0	16.2	1.000059
44000.0	163.5	-52.9	250.6	573.1	252.0	16.3	1.000058
44500.0	159.7	-53.1	252.8	577.9	252.6	20.7	1.000056
45000.0	155.9	-53.7	247.6	577.1	252.2	23.2	1.000055
45500.0	152.3	-54.3	242.4	576.3	253.2	25.1	1.000054
46000.0	148.7	-54.9	237.4	575.5	256.2	25.3	1.000053
46500.0	145.2	-55.6	232.6	574.6	259.1	25.5	1.000052
47000.0	141.8	-56.3	227.8	573.6	259.9	26.7	1.000051
47500.0	138.4	-57.0	223.1	572.7	260.4	28.1	1.000050
48000.0	135.1	-57.7	218.5	571.6	262.6	28.3	1.000049
48500.0	131.9	-58.4	214.0	570.9	267.0	27.3	1.000048
49000.0	128.6	-59.1	209.6	569.9	271.6	26.4	1.000047
49500.0	125.7	-59.8	205.3	569.0	280.9	23.9	1.000046
50000.0	122.7	-60.5	201.1	568.1	291.7	22.1	1.000045
50500.0	119.8	-60.9	196.5	567.6	295.9	20.7	1.000044
51000.0	116.9	-60.9	191.9	567.5	295.4	19.2	1.000043
51500.0	114.1	-61.0	187.3	567.4	294.0	17.8	1.000042
52000.0	111.3	-61.1	182.9	567.3	293.5	16.7	1.000041
52500.0	108.6	-61.7	179.0	566.4	291.9	15.6	1.000040
53000.0	106.0	-62.4	175.2	565.5	289.5	14.6	1.000039
53500.0	103.4	-63.1	171.5	564.6	286.6	13.5	1.000038
54000.0	100.9	-63.8	167.9	563.7	283.4	12.5	1.000037
54500.0	98.4	-64.4	164.3	562.6	280.0	11.5	1.000037
55000.0	96.0	-65.1	160.8	561.9	278.2	10.8	1.000036
55500.0	93.6	-65.8	157.4	560.9	280.0	10.9	1.000035
56000.0	91.3	-66.5	154.0	560.0	283.1	10.9	1.000034
56500.0	89.1	-67.2	150.7	559.1	283.6	10.8	1.000034
57000.0	86.9	-67.0	146.9	559.3	284.2	10.7	1.000033
57500.0	84.7	-68.8	143.1	559.6	281.5	10.3	1.000032
58000.0	82.7	-66.7	139.5	559.8	278.5	9.8	1.000031
58500.0	80.6	-66.5	135.9	560.0	277.0	9.3	1.000030
59000.0	78.6	-66.3	132.4	560.3	276.4	8.6	1.000029
59500.0	76.7	-66.1	129.0	560.5	276.9	8.0	1.000029
60000.0	74.8	-66.0	125.8	560.6	279.0	7.3	1.000028
60500.0	72.9	-65.8	122.5	561.0	278.5	6.6	1.000027
61000.0	71.1	-65.6	119.4	561.2	275.1	6.1	1.000027
61500.0	69.4	-65.5	116.4	561.4	267.5	5.8	1.000026
62000.0	67.7	-65.5	113.5	561.4	263.5	5.6	1.000025
62500.0	66.0	-65.5	110.6	561.4	261.5	5.2	1.000025
63000.0	64.4	-65.5	108.0	561.4	271.9	4.0	1.000024

STATION ALTITUDE 3989.00 FEET SL
20 FEB. 62 0911 HRS MST
ASCENSION, IO. 65

UPPER AIR DATA
0510020063
WHITE SANDS

TABLE 22 Cont'd

CLOUD 11, COORDINATES
32.40043 LAT 11G
106.37033 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND METERS PER SECOND	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
63500.0	62.8	-65.5		105.4	561.4	286.0	3.0	1.000023
64000.0	61.3	-65.5		102.8	561.4	282.9	1.1	1.000023
64500.0	59.8	-65.5		100.3	561.4	148.7	1.3	1.000022
65000.0	58.3	-65.5		97.8	561.4	134.4	2.8	1.000022
65500.0	56.9	-65.5		95.4	561.4	127.4	4.4	1.000021
66000.0	55.5	-65.5		93.0	561.5	202.1	4.0	1.000021
66500.0	54.1	-64.6		90.4	562.0	240.9	6.5	1.000020
67000.0	52.8	-63.8		87.9	563.6	202.0	8.7	1.000020
67500.0	51.5	-63.0		85.4	564.7	213.8	9.5	1.000019
68000.0	50.2	-62.3		83.0	565.8	203.8	9.9	1.000018
68500.0	49.0	-61.7		80.8	566.5	298.3	8.3	1.000018
69000.0	47.9	-61.1		78.6	567.3	317.6	7.5	1.000018
69500.0	46.7	-60.6		76.6	568.0	355.2	7.9	1.000017
70000.0	45.6	-60.0		74.5	568.7	349.2	8.9	1.000017
70500.0	44.5	-59.5		72.6	569.4	400	8.6	1.000016
71000.0	43.4	-59.0		70.6	570.2	42.5	6.7	1.000016
71500.0	42.4	-58.4		68.8	570.9	81.3	8.4	1.000015
72000.0	41.4	-58.2		67.1	571.1	109.5	8.2	1.000015
72500.0	40.4	-58.2		65.5	571.1	130.2	9.4	1.000015
73000.0	39.4	-58.3		64.0	571.1	148.5	10.1	1.000014
73500.0	38.5	-58.3		62.4	571.0	148.0	7.9	1.000014
74000.0	37.6	-58.3		61.0	571.0	149.2	5.6	1.000014
74500.0	36.7	-58.4		59.5	570.9	147.5	4.4	1.000013
75000.0	35.8	-58.4		58.1	570.9	143.2	3.4	1.000013
75500.0	35.0	-58.4		56.7	570.9	142.4	2.5	1.000013
76000.0	34.1	-58.5		55.4	570.8	177.1	2.0	1.000012
76500.0	33.3	-58.5		54.1	570.8	211.4	2.5	1.000012
77000.0	32.5	-58.0		52.7	571.5	219.5	1.8	1.000012
77500.0	31.8	-57.3		51.3	572.5	136.4	.1	1.000011
78000.0	31.0	-56.7		49.9	573.2	48.5	1.0	1.000011
78500.0	30.3	-56.1		48.6	574.0	67.2	4.0	1.000011
79000.0	29.6	-55.8		47.4	574.5	72.8	6.3	1.000011
79500.0	28.9	-55.8		46.3	574.5	77.7	8.0	1.000010
80000.0	28.2	-55.8		45.2	574.5	65.4	8.7	1.000010
80500.0	27.5	-55.8		44.2	574.5	92.0	9.4	1.000010
81000.0	26.9	-55.8		43.1	574.5	97.1	6.9	1.000010
81500.0	26.3	-55.6		42.1	574.0	102.9	7.9	1.000009
82000.0	25.7	-55.2		41.0	575.1	110.3	7.0	1.000009
82500.0	25.1	-54.8		40.0	575.0	112.5	6.7	1.000009
83000.0	24.5	-54.5		39.0	576.1	114.0	6.5	1.000009

STATION ALTITUDE 3989.00 FEET MSL
20 FEB. 62 0911 HRS MST
ASCENSION NO. 65

UPPER AIR DATA
0510020063
WHITE SANDS

BUOY DATA, COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

TABLE 22 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SFC OF SOUND M/SEC	WIND DATA DIRECTION SPEED KNOTS	INDEX OF REFRACTION
83500.0	23.9	-54.1		38.0	576.6	110.8	6.1
84000.0	23.4	-53.7		37.1	577.1	119.1	1.000008
84500.0	22.8	-53.3		36.1	577.6	121.9	1.000008
85000.0	22.3	-52.9		35.2	578.1	124.9	1.000008
85500.0	21.8	-52.6		34.4	578.5	129.3	1.000008
86000.0	21.3	-52.8		33.6	578.3	130.6	1.000007
86500.0	20.8	-52.9		32.8	578.1	133.1	1.000007
87000.0	20.3	-53.1		32.1	577.9	129.8	1.000007
87500.0	19.8	-53.1		31.4	577.8	128.1	1.000007
88000.0	19.4	-53.0		30.6	578.0	129.9	1.000007
88500.0	18.9	-52.9		29.9	578.2	135.3	1.000007
89000.0	18.5	-52.8		29.2	578.4	138.2	1.000006
89500.0	18.0	-52.6		28.5	578.5	134.2	1.000006
90000.0	17.6	-52.5		27.8	578.7	132.7	1.000006
90500.0	17.2	-52.4		27.2	578.9	139.1	1.000006
91000.0	16.8	-52.1		26.5	579.3	142.0	1.000006
91500.0	16.4	-51.5		25.8	580.0	143.4	1.000006
92000.0	16.1	-51.0		25.2	580.7		1.000006
92500.0	15.7	-50.4		24.5	581.4		1.000005
93000.0	15.3	-49.9		23.9	582.1		1.000005

STATION ALTITUDE 3989.00 FEET ASL
20 FEB. 82 0911 HRS MST
ASCENSION NO. 65

MANDATORY LEVELS
0510020065
WHITE SANDS

GEODTL, COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 23

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.	WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE		DIRECTION DEGREES (TN)	SPEED KNOTS
1150.0	5072.	10.1	-1.0	40.	0.2	13.7
800.0	6722.	8.8	-8.5	28.	359.0	21.1
750.0	8465.	5.8	-7.0	39.	351.0	16.2
700.0	10307.	2.7	-12.7	31.	17.5	11.5
650.0	12262.	-1.2	-16.4	30.	53.5	13.7
600.0	14336.	-6.1	-16.9	42.	39.1	13.3
550.0	16555.	-10.2	-22.7	35.	38.7	20.7
500.0	18938.	-15.9	-29.8	29.	66.3	19.8
450.0	21516.	-21.3	-35.7	20.	69.1	21.4
400.0	24334.	-27.3	-42.4	22.	61.4	44.4
350.0	27439.	-35.0	-46.5	29.	57.0	53.4
300.0	30905.	-42.0			54.7	53.2
250.0	34886.	-51.1			35.5	43.8
200.0	39009.	-52.6			358.8	9.9
175.0	42442.	-52.4			250.8	12.8
150.0	45700.	-54.7			253.0	23.2
125.0	49481.	-60.0			282.9	23.5
100.0	54016.	-64.0			282.4	12.2
80.0	58454.	-66.4			270.9	9.1
70.0	61113.	-65.5			269.5	5.9
60.0	64189.	-65.5			163.1	.9
50.0	67645.	-62.1			283.4	9.6
40.0	72421.	-58.3			143.4	10.2
30.0	78371.	-55.8			69.7	4.8
25.0	82142.	-54.8			112.4	0.7
20.0	86894.	-53.2			120.4	0.7

L MED
-8